DOCUMENT RESUME

ED 064 492 VT 015 714

AUTHOR	Wood, Lucile A.
TITLE	A Career Model for Nurse Practitioners. Allied Health Professions Project.
INSTITUTION	California Univ., Los Angeles. Div. of Vocational Education.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	Mar 72
GRANT	OEG-8-0627
NOTE	101p.
AVAILABLE FROM	University of California, Division of Vocational Education, 1003 Wilshire, Santa Monica, California 90401 ($3.00)
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Curriculum Design; *Curriculum Development; Health Education; *Health Occupations Education; Health Personnel; Health Programs; Manpower Development; *Models; *Nurses; Professional Occupations; *Vocational Development; Vocational Education
IDENTIFIERS	Allied Health Professions Project

ABSTRACT

Described in this document is a five-stage curriculum model for the training of nurse practitioners which was developed through the Allied Health Professions Project (AHPP). Based on a national survey of nursing occupations, stage I of the curriculum model includes the 60 percent of activities common to all practitioners, and stage II includes the remaining or more complex skills. Stage III is designed to prepare teachers, administrators, or consultants for beginning faculty positions for stages I and II. Stage IV curriculum prepares teachers for faculty positions for stages II and III and administrators for large health agencies. Stage V prepares the nurse researcher at the doctoral level. This five-stage model can be used to increase competence in nursing practice, decision-making, and administrative and communications skills. (JS)

VT 015 714

ED 064492

CAREER MODEL FOR NURSE PRACTITIONERS

ALLIED HEALTH PROFESSIONS

University of California, Los Angeles
Division of Vocational Education

UNIVERSITY OF CALIFORNIA, LOS ANGELES
Division of Vocational Education

ALLIED HEALTH PROFESSIONS PROJECT

EXECUTIVE RESEARCH AND DESIGN GROUP
(EXECUTIVE COMMITTEE)

Melvin L. Barlow, Professor of Education, *Chairman*
Director, Division of Vocational Education
University of California, Los Angeles

David Allen, Coordinator
Professional Resources Development Unit
Bureau of Industrial Education
State Department of Education

Miles H. Anderson, Acting Director
Allied Health Professions Project
Division of Vocational Education
University of California, Los Angeles

B. Lamar Johnson, Professor of Education
University of California, Los Angeles

Richard S. Nelson, Chief
Program Operations–Vocational Education
Bureau of Industrial Education
State Department of Education

Bernard R. Strohm
Assistant Director of Hospitals and Clinics
University of California, Los Angeles

STAFF

Melvin L. Barlow, Ed.D.	Principal Investigator and Project Director
Miles H. Anderson, Ed.D.	Acting Director
Thomas E. Freeland, Ph.D.	Deputy Director
Carol Tripp	Project Coordinating Assistant
Mary Ellison Sylva Grossman Seba Kolb	Editors

1003 Wilshire Boulevard, Santa Monica, California 90401 (213) 393–9281

ED 064492

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

A CAREER MODEL

FOR

NURSE PRACTITIONERS

Lucile A. Wood, R.N., M.S.
Associate Director
Nursing Occupations

U. S. Office of Education
Research and Demonstration
Grant 8-0627

UNIVERSITY OF CALIFORNIA, LOS ANGELES
Division of Vocational Education
ALLIED HEALTH PROFESSIONS PROJECT

March 1972
Second printing, May 1972

This publication was prepared pursuant to Grant 8-0627, Office of Education, Bureau of Research, U. S. Department of Health, Education, and Welfare. Points of view or opinions were developed on the basis of advisory committee suggestions and survey data. They do not, therefore, necessarily represent official Office of Education position or policy.

FOREWORD

The Division of Vocational Education, University of California, is an administrative unit of the University which is concerned with responsibilities for research, teacher education, and public service in the broad area of vocational and technical education. During 1968 the Division entered into an agreement with the U. S. Office of Education to prepare curricula and instructional materials for a variety of allied health occupations. For the most part, such materials are intended for use in programs ranging from on-the-job training through the Associate degree level. They also can be adapted for use in adult and continuing education.

A National Advisory Committee, drawn from government, education, professional associations in the health care field, and the lay public, provides guidance and help to the over-all activities of the Allied Health Professions Project. The following individuals and institutions participate in the activities of this nationwide interdisciplinary body:

Phillip L. Williams — *Chairman*
Vice President, The Times Mirror Company
Los Angeles, California

Lowell Burkett, Executive Director
American Vocational Association
Washington, D. C.

L. M. Detmer, Director
Bureau of Manpower and Education
American Hospital Association, Chicago, Illinois

Dale Garell, M.D.
Children's Hospital
Los Angeles, California

John F. Henning, Executive Secretary-Treasurer
California Federation of Labor
San Francisco, California

Joseph Kadish, Ph.D., Acting Chief
Educational Program Development Branch
National Institutes of Health, Washington, D.C.

Bernard F. Kamins
Public Relations Consultant
Beverly Hills, California

Ralph C. Kuhli, Director
Department of Allied Medical Professions and Services
American Medical Association, Chicago, Illinois

Leon Lewis, Chief
Division of Occupational Analysis and Employer Services
Manpower Administration, Department of Labor, Washington, D. C.

Walter J. McNerney, President
Blue Cross Association
Chicago, Illinois

Peter G. Meek, Executive Director
National Health Council
New York, New York

Mark J. Musser, M.D., Chief Medical Director
Department of Medicine and Surgery
Veterans Administration, Washington, D. C.

Leroy Pesch, M.D., Deputy Assistant Secretary for Health Manpower
Department of Health, Education, and Welfare
Washington, D. C.

Helen K. Powers, RN, Education Program Specialist
Health Occupations Education
U. S. Office of Education, Washington, D. C.

William M. Samuels, Executive Director
Association of Schools of Allied Health Professions
Washington, D. C.

Dr. William Shannon, Acting Executive Director
American Association of Junior Colleges
Washington, D. C.

Elizabeth Simpson, Ph.D.
Director of Curriculum Projects for In-Service Career Education
U. S. Office of Education
Washington, D. C.

John D. Twiname, Commissioner
Social and Rehabilitation Service
Department of Health, Education, and Welfare
Washington, D. C.

C. Gordon Watson, D.D.S., Executive Director
American Dental Association
Chicago, Illinois

Richard S. Wilbur, M.D., Assistant Secretary of Defense
(Health and Environment)
Health and Medical Manpower and Reserve Affairs
Washington, D. C.

In addition, each of the specialized programs comprising the Project has the benefit of consultation with a National Technical Advisory Committee of persons especially knowledgeable in the occupational area concerned and, where necessary, of highly skilled consultants. Such experts contributed substantially to the development of the task list which provided the basis for development of the nursing curriculum and to the creation of teaching materials based on national survey results.

Because of public awareness of the need for vast expansion in the pool of nursing manpower, the interest of legislators, educators, and administrators, the constant technological change affecting the field of health care delivery, the development of an innovative curriculum for nurse education has aroused intense interest throughout the country. This interest is evidenced by the cooperation of institutions of all types in providing pilot testing sites for the new instructional materials generated by the Project, and by the constant "feed-back" which has made it possible to incorporate the suggestions of many acknowledged experts in the teaching materials in the course of development.

The nursing curriculum is the first of the Allied Health Professions Project products to be accepted by a commercial publisher. It will be issued by W. B. Saunders Co. of Philadelphia under the title of *Nursing Skills for Allied Health, Vol. 1 and Vol. 2*, and is scheduled for distribution during the Spring of 1972.

Melvin L. Barlow, Ed.D., Director
Division of Vocational Education
University of California

Professor of Education, UCLA

Principal Investigator
Allied Health Professions Project

March, 1972

PREFACE

For many years the nursing profession has tried with small success to meet steadily increasing health needs of the nation. At the same time, nursing has sought to attain equal footing with other professions.

It should be possible to attain professional status by developing the nursing career on the basis of widely differing nursing functions in succeeding steps in a five-stage career sequence. The term "function" is used to mean nursing activities and their consequences as they relate to helping an individual patient, student, or practitioner to establish optimal relationships with the surrounding environment.

The following developmental model, which takes into account the differing functions of nursing practitioners, seems to be a valid approach. It is based on specific facts derived from the current studies of the UCLA Allied Health Professions Project (AHPP),[1,2] recommendations from various nursing reports from 1923 to the present time, various States' efforts to revise their Nurse Practice Acts, and personal observations and experience.

The schematic on Page 20 will assist you in differentiating the relationships of the knowledges and skills to the progressing stages.

Stage I is the entering curriculum in nursing. It includes the 60% of activities common to all practitioners, (NA, LVN, RN) as revealed in the Allied Health Professions Project national survey of the nursing occupations.[3] In addition to the fundamental nursing skills, a moderate amount of related technical and scientific information in the physical and behavioral sciences and a minimum of general knowledge are included. Nursing practitioners have an opportunity to learn and practice basic nursing skills until a moderate competence is achieved. These practitioners would comprise an estimated 25% of the nursing work force.

Stage II of the model prepares the "Basic Nurse Practitioner." This curriculum includes the remaining 40% of activities identified by the survey report. These involve the more complex nursing skills, accompanied by beginning theory relating to human functions, and theory and practice in problem-solving, decision-making, and communication skills. This stage attempts to combine the strengths of the present LPN, Associate degree, diploma, and, in some instances, Baccalaureate curricula, to develop a competent fundamental nursing practitioner based on function. Stage II would

---

[1]Katherine L. Goldsmith, Mary E. Jensen, Lucile A. Wood, and Don Zimmerman. *A Study of Nursing Occupations.* Los Angeles: UCLA Allied Health Professions Project, April 1970.

[2]Lucile A. Wood and Thomas E. Freeland. *Progress Report, Nursing Occupations.* Los Angeles: UCLA Allied Health Professions Project, April 1971, pp. 13-31 (out of print).

[3]Goldsmith *et al., op. cit.*

comprise about 50% of the work force and would provide the bulk of direct nursing service to the patient.

If this Basic Nurse Practitioner were to become the second stage in the career sequence, it would be possible to have only one nurse practitioner license, and to eliminate the present conflict between "technical," "professional," and the various licensed titles (LPN and RN).

Stage III would provide the beginning skills and knowledge to teach, administer, or consult in a specialty area. These graduates could be employed as beginning faculty for the Stages I and II programs, or in beginning administrative or specialist positions in health care agencies.

Although the time taken to attain this stage may be comparable to that needed for the present Baccalaureate degree, it is not certain that two years would always be required to complete this stage. For example, the Basic Nurse Practitioner could select one of several additional courses to pursue (critical care nurse, inhalation therapist, pediatric nurse assistant or associate, and others) — all requiring differing time elements. This stage would comprise 15% of the practitioners.

If the objective of the instructional program is to prepare a nurse to function differently at each stage, a degree may or may not be necessary. This point is currently debatable. Nurses should understand that there is a difference between proficiency in nursing practice and fulfillment of requirements for an academic degree. *It seems likely that practice and degree should be complementary* and voluntary activities, and not mandatory for everyone.

The content of the stage IV curriculum would be of an advanced academic nature and would prepare teaching faculties for Stages II and III programs, as well as administrative personnel for large health agencies. It would be logical to offer beginning research methodology at this point, so that these graduates could become strong supporters of nursing research and could assist in identifying researchable clinical nursing problems.

Although Stage IV would not at this time include high-level nursing theory, this could be looked for within the next decade if Stage V of this model were to be fully implemented. Graduates of Stage IV would comprise about 9% of the nursing work force.

Stage V, on the level of present Doctoral programs, would prepare the nurse researcher. If 1% of the nursing population could, in fact, be engaged in nursing research, nursing could expect to attain a professional status equal to or better than other true professions within the foreseeable future.

The scientific body of nursing knowledge could be expected to improve the quality of nursing practice by setting up a system of assessing and analyzing patient needs, the selection of appropriate courses of action, and the assumption of responsibility for such action.

This five-stage model is seen as a sound method for developing nurse practitioners. More important, each stage would include increasing and cumulative competence in nursing practice, decision-making, and problem-solving, and in administrative, teaching, and communication skills.

Since the functions outlined in the model are widely different, it would become possible to define a more precise curriculum. Duplication and overlapping content could be eliminated, with the result of shortening the educational time requirement. Because the programs would prepare widely different kinds of practitioners, a more precise utilization of the graduate could be expected.

The developmental model would permit a Basic Nurse Practitioner license based on function. In addition, there would be a built-in means to continue education whenever needs produced a change in career goals.

The ultimate outcome of the implementation of this model would not only help nursing to achieve professional status, but, most important, would realistically prepare and utilize every member of the nursing work force, directing all their efforts toward the provision of high quality nursing care.

Lucile A. Wood, R.N., M.S.

Associate Director for
the Nursing Occupations

March 1972

CONTENTS

Page

Foreword iii

Preface vii

A CAREER MODEL FOR NURSE PRACTITIONERS

I. Background Information 1

A. History 1

B. Occupations Included in the Grant Program 1

C. Core Curriculum 3

D. Definitions of Terms 4

II. The Nursing Program

A. A Study of Nursing Occupations 6

B. Report on Current Progress 6

C. Development of the Nursing Curriculum, Stage I and Stage II 9

D. Testing Programs 10

E. Continuing Activities in Curriculum Development 13

III. Evaluation Design 14

IV. Future Plans for the Nursing Program 16

V. Meaningful Change: A Career Model for Nurse Practitioners 17

Bibliography 25

LIST OF SCHEMATICS

Organization of Instructional Materials 5

Career Sequence for Nursing Occupations 20

LIST OF APPENDICES

I. Task Breakdown by Functional Areas 27

II. Members of the National Technical Advisory Committee for the Nursing Occupations. . . 47

Contents (continued)

	Page
III. Format for Nursing Occupations Instructional Units	49
IV. General Considerations for Planning an Effective Management System for Utilization of Stage I Nursing Instructional Units	51
A Suggested System for Implementing Individualized Instruction in a Classroom Setting	53
Model Showing Operation of System with Two Parallel Courses, Course A and Course B	54
General Instructions for the Faculty on Administration of Performance Tests	55
General Instructions to Students Taking Performance Tests	56
Form I	57
Form II	58
Form III	59
Form IV	60
V. Field-Testing Program for the Nursing Occupations	61
VI. Table of Instructional Units Encompassed in Stage I and Stage II	65
VII. Sample Teacher's Guide	69
Diagnostic Test	71
Annotated Answer Sheet	72
Performance Checklist	73
VIII. Sample Instructional Unit: "Handwashing Technique for Medical Asepsis"	75

A CAREER MODEL FOR NURSE PRACTITIONERS

I. Background Information

A. *History*

The Allied Health Professions Projects (AHPP), a national curriculum research and development program funded by the U.S. Office of Education (HEW), began operations in August 1968. The objectives of the program are:

1. To develop curricula and instructional materials for health-related occupations.
2. To explore core curriculum concepts.
3. To explore horizontal and vertical mobility of personnel.
4. To develop instructional packages useful throughout the nation for post-secondary education, including in-service and pre-service programs up to and including the Associate degree as well as for adult education.

The research and development work for each of the occupations is carried on with the assistance of a National Technical Advisory Committee (NTAC) of experts in the field. The basic methodology is as follows:

1. Identify and list tasks in functional area described.
2. Verify tasks through national survey.
3. Determine process involved in performance of these tasks as well as the knowledge and skills required for satisfactory performance of these skills.
4. Formulate behavioral objectives or performance goals.
5. Develop curriculum to include the career sequence concept, continuing education, attainment of degree objectives, and transferability of credit.
6. Develop innovative instructional materials and teacher and student instruction manuals based on a modular concept leading to a core curriculum where feasible.
7. Test in the field.
8. Evaluate student performance by measuring students' success in attainment of the behavioral objectives.
9. Produce instructional materials.
10. Distribute instructional materials.

B. *Occupations Included in the Grant Program*

1. *Clinical Occupations*

These activities are concerned with direct provision of patient care; they are subdivided into several major categories, listed as follows:

a. *Nursing:* nurse aide (orderly), LVN (LPN), OB/OR technician, psychiatric aide, RN (associate degree), community health nurse
b. *Bioelectrical Monitoring:* EEG, EKG, and EMG technician
c. *Biomedical Photography*
d. *Dental Auxiliary:* dental assistant, dental hygienist, dental laboratory technician
e. *Medical Assistant:* medical office assistant, special assistant, gastroenterology assistant
f. *Medical Laboratory:* medical laboratory technician, certified laboratory assistant (CLA), laboratory aide, cytotechnologist, histologic technician
g. *Radiologic Technology:* diagnostic technician, therapeutic technician
h. *Respiratory Care/Inhalation Therapy:* cardiopulmonary technician, inhalation therapist
i. *Social Service:* community health aide, community mental health aide, family health worker, health assistant
j. *The Therapies:* occupational therapy assistant, occupational therapy aide, orthotic technician, physical therapy assistant, physical therapy aide

2. *Facilities Support Services*

Pharmacy, Purchasing, Admitting Office, Business Office, Food Service, Medical Records, Ward Administration, Environmental Sanitation, Central Service, Housekeeping, Laundry.

3. *Secondary Schools Pilot and Demonstration Project*

The project has developed a curriculum package for An Introduction to the Allied Health Professions, which will prepare high school students for employment or continuing education in the health care occupations. Specifically, upon completion of the program:

a. The student will be prepared to make an appropriate career choice of an allied health occupation.
b. The student will continue in an advanced educational or training program and/or will be employed in an allied health occupation.
c. The student will be able to function satisfactorily as an employee in the health care system.
d. The student will be a knowledgeable consumer of health care services.

This project was initiated in four high schools in the Los Angeles City and Long Beach School Districts for the 1970-71 school year. At least seven additional programs have been funded in the State of California for 1972-1973.

C. *Core Curriculum*

"Core" has many meanings, including: (1) that part of the curriculum which is concerned with the types of experiences thought to be essential for the development of specific behavior competencies considered necessary for effective action; (2)a number of logically organized subjects or fields of knowledge which may be interrelated; (3) common problems or units of work; and (4) ideas providing a design or structure for studying a particular subject.

The concept of core curriculum was first expressed about 35 years ago. The specific advantages of core curriculum are thought to include: (1) enhancing teaching efficiency and economy by structuring a foundation of courses which can be applied to a wide spectrum of careers; (2) providing uncommitted students with an educational experience which will assist in their choice of career and be applicable to that career; (3) allowing the student to synthesize and correlate learning experiences; (4) permitting greater program flexibility and adaptability; and (5) providing for greater interaction among allied health students.

Because of the numerous definitions and purposes of core curriculum, because the allied health occupations encompass a broad spectrum of knowledges and tasks, and because the project is of the opinion that "core" should be based on the performance of common tasks, the project staff has defined various levels of core. Using the performance of a specific task as a basis, the following categories are delineated:

1. Tasks which are performed by all levels and types of allied health workers. These tasks form an allied health core, e.g., Handwashing for Medical Asepsis.
2. Tasks which are performed by all levels of personnel within a specific occupational field. These tasks comprise a core which is specific to an occupational field, e.g., bedmaking.
3. Tasks which are performed by a specific category of personnel within a specific occupational field, i.e., dependent on position title or certification. These tasks comprise a core which is specific to one level of personnel within an occupational category, e.g., RN — give IV medication.
4. Tasks which are thought to be job-specific. That is, the performance of these tasks is related to the environment in which the task is performed; therefore, it may be unique to a specific worker, e.g., Group Therapy Counseling — for Psychiatric RNs.

The Allied Health Professions Project is developing core curricula based on the performance of common tasks as delinated in the above categories.

D. *Definitions of Terms*

To clarify the terminology used in this report, the following definitions of terms are offered:

Core: See above.

Behavioral Objective: The capabilities which the student should acquire as a result of the learning experience.

Career Lattice: Provision of opportunity for the entry-level individual and/or trained worker to continue his education to a more advanced level in an occupational field.

Curriculum: The sum total of learning experiences for which the school has responsibility.

Course: One or more related units of instruction.

Instructional Unit: Instructional materials which consist of one or more related modules.

Module: A self-contained instructional segment.

Entry-Stage: The point at which a novice student undergoes preparation for gainful employment at the first career stage which provides a foundation for advancement in an occupation.

General Knowledge: Information that develops "pride in the profession" and other professional values.

Job Operation Breakdown: A study to determine the steps a worker must do and the key points of knowledge he must know in order to perform a given task.

Key Point: Knowledge which is required to perform a step. A key point may be one of three types: (1) anything that assures success or causes failure; (2) physical dangers; (3) any "trick" which may make the work easier.

Learning: That which occurs when a person changes his own behavior. Behavioral changes may be the acquiring or discarding of skills, knowledges, and/or attitudes.

Occupational Analysis: A study to determine the tasks currently being performed by workers in a given occupational area.

Programmed Instruction: A systematized auto-tutorial self-paced instructional method.

Programmed Learning: A series of sequential learning experiences which results in a change in behavior.

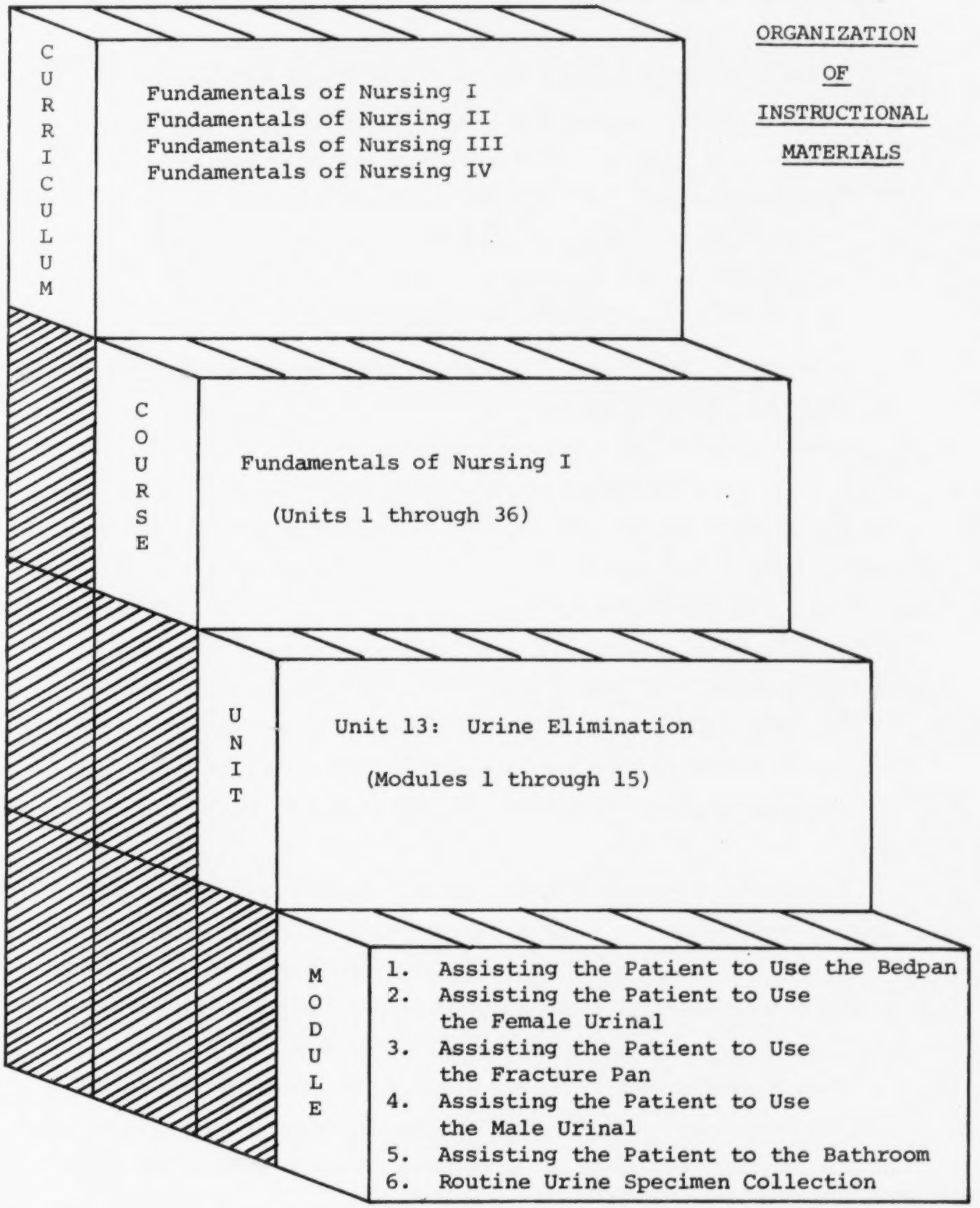
Stage: A major element of an occupational curriculum which permits, at completion, full employment as a practitioner with demonstrable performance capabilities (skills, knowledge), i.e., Nursing Occupation, Stage II — Basic Nurse Practitioner.

Step: A logical segment of a task, when something happens to advance the work.

Task: A series of steps that make up a complete unit of work.

Teaching: Assisting learners to change their own behavior, and creating conditions which are conducive to behavioral changes.

NURSING OCCUPATIONS


CURRICULUM
Fundamentals of Nursing I
Fundamentals of Nursing II
Fundamentals of Nursing III
Fundamentals of Nursing IV
COURSE
Fundamentals of Nursing I
(Units 1 through 36)
UNIT
Unit 13: Urine Elimination
(Modules 1 through 15)
MODULE
1. Assisting the Patient to Use the Bedpan
2. Assisting the Patient to Use the Female Urinal
3. Assisting the Patient to Use the Fracture Pan
4. Assisting the Patient to Use the Male Urinal
5. Assisting the Patient to the Bathroom
6. Routine Urine Specimen Collection

ORGANIZATION OF INSTRUCTIONAL MATERIALS

II. Nursing Program

A. *A Study of Nursing Occupations* (April 1970)[1]

This report analyzes response to the comprehensive nursing task list which was sent out in a nationwide survey of health care facilities. The list comprises 306 tasks which were defined by the Nursing National Technical Advisory Committee, using the parameters set forth by the Project design committee.

The tasks were grouped into six functional areas of activity:

1. Diversional, Therapeutic and Assistance Activities (total tasks: 9)
2. Safety and Comfort: Personal Hygiene and General Comfort (total tasks: 69)
3. Nutrition and Elimination (total tasks: 42)
4. Treatment Procedures, Medications and Diagnostic Activities (total tasks: 78)
5. Observation and Communication (total tasks: 64)
6. Administration, Coordination, Housekeeping (total tasks: 44)

A functional breakdown of the tasks comprising the survey appears in Appendix I.

B. *Report on Current Progress*

In an effort to provide current information on the AHPP nursing program, the present report has been made available for information and use in planning. Feedback and suggestions pro or con are requested; they would be extremely helpful as the project proceeds through the developmental stages. To date, the following uses of AHPP materials have been reported: correlation with what others in the country are doing; revision of existing curricula based on the results of AHPP national task analyses; criteria for selecting new employees; orientation for new employees; guidance for writing or updating job descriptions, etc.

The occupational analysis of nursing was completed in April 1970.[2] On the basis of the findings, the task list has been rearranged into three groups, according to the tasks performed by (I) all nursing categories — NA, LVN (LPN), RN; (II) the RN and LPN (LVN) only; (III) the RN only.

For purposes of reporting and planning, these three compilations are used respectively as the basis for the preparation of Instructional Units for Stage I and Stage II of the nursing curriculum. In other words, a nursing student completes the Instructional Units in Stage I before proceeding to Stage II. If the student chooses not to go on for any reason, he or she can terminate the course at this point and still have a salable skill, namely, Nurse Aide (Orderly).

Thus, a potential worker has been retained in the health field. Too frequently in the past, dropouts from various nursing programs have been lost to the health field forever. This is a waste of time, effort, and manpower for all concerned. This stage of capability could also serve as a

[1]Katherine L. Goldsmith, Mary E. Jensen, Lucile A. Wood, and Don Zimmerman. *A Study of Nursing Occupations*. Los Angeles: UCLA Allied Health Professions Project, April 1970.

[2]*Ibid.*

basis for future career mobility if the desire or need should occur. It is hoped that in this way greater motivation will be generated to continue in the career sequence. It is also expected that greater numbers of trained personnel will be retained in the nursing occupations.

If the student elects to proceed on the career sequence up through Stage II, he or she can become a Basic Nurse Practitioner at the completion of this stage. At this time, the graduate has a far more advanced level of salable skill to offer on the job market. These graduates would provide the bulk of direct nursing services given to patients.

At completion of Stage III, graduates would become available for employment in beginning faculty, administrative, or specialist positions. This education may have taken them into a college curriculum, ultimately leading to the attainment of the Baccalaureate degree, in addition to the designation of Basic Nurse Practitioner. However, this may not always be true, since the nurse practitioner may select an educational program which requires a shorter period of time; e.g., critical care nursing, inhalation therapy, etc.

It is further proposed that the curriculum be established on an open-entry/open-exit plan, thereby enabling optimal use of faculty, educational materials and settings, and clinical settings. In the instructional modules, an effort has been made to be innovative while providing a sound educational basis for this program. AHPP has endeavored to simplify (but not water down) content in the following manner, by:

1. Specifying the skill (activity or task) to be learned.
2. Subdividing the skill into major steps to be learned.
3. Supporting the practical content with related theory which will clarify the major steps, e.g., factors which make or break the successful attainment of the skill; safety precautions; points for making the step easier to do (special timing, special handling or positioning, special sequence of action); related biological concepts or principles of microbiology, where applicable; communication and human relations skills needed for successful completion of the activity; pertinent ethical or legal concepts.
4. Planning the learning sequence.
    a. Demonstration or film introducing the unit.
    b. Study of the Instructional Unit, followed by written post-test (no grade).
    c. Practice in learning lab, taking performance examination (pass/fail).
    d. Supervised clinical practice with periodic evaluation checks.

Note: Various combinations of audiovisual/tutorial aids will be utilized. The intent is to provide alternative media suggestions which will enable the users to adapt these materials to their present systems. In other words, some of the materials may be prepared for presentation via several types of adaptable media, i.e., student manuals, filmstrip, 8mm, 16mm, cassette packaging, etc.

Six writer-consultants who are experienced nursing educators and/or nursing practitioners were recruited in June 1970 to assist in the development of the Stage I Instructional Units. They were: Miss Adrienne Ardigo, B.S.; Miss Inice Chirco, M.S.; Miss Jane Kahn, M.N.; Mrs. Beverly Rambo, M.S.; Mrs. Bettie Rich, M.S.; and Mrs. Frances Rogozen, M.S.

The consultant writers assisting in the preparation of the Stage II Instructional Units were Miss Ardigo, Miss Chirco, Miss Kahn, Miss Myda Magarian, M.N., Mrs. Linda Newell, B.S., Mrs. Rambo, and Miss Virginia Stopera, M.N.

It was the objective of the writers to make sure that the learner attains knowledge, skills, and a change of attitude at the performance stage designated by the Instructional Module. A module is here defined as that small portion of an Instructional Unit which can stand alone. It incorporates the important steps, key points, and related information as needed to develop the task or activity to be learned.

It is believed that learning is an active process, and therefore, that the student must be "actively doing." The instructor functions chiefly as facilitator of learning.

As the entire Project progresses, the respective Associate Directors expect that certain Instructional Units being developed may become "common core units" which could be used in any one or all of the allied health occupations. If this is possible, an overall curriculum design could become dynamic and open-ended, permitting the learner to go in any one of a variety of directions (horizontal, vertical, or a combination of both) as desired. Workers will thus be retained in the health field because they will no longer find themselves in a self-limiting or dead-end occupation.

Component modules may be used in a variety of settings: acute care facilities, extended care facilities (ECF), home health agencies, agency in-service programs, adult educational programs, vocational and Associate degree nursing programs. For this reason it is believed that a certain standardization of practice may result. The specific sequencing of content will remain within the purview of the respective instructors of the faculty.

For the nursing curriculum, the stages of learning are labeled as follows:

Stage I — entry-stage nursing skills

Stage II — comparable to a combination of the present LVN (LPN), diploma, and Associate degree nursing curricula

Stage III — perhaps comparable to the present Baccalaureate RN curriculum

Stage IV — comparable to present Master's degree in nursing

Stage V — comparable to present Ph.D. in nursing

For a detailed discussion of this sequence, see "Meaningful Changes: A Career Model for Nurse Practitioners," Page 17.

C. *Development of the Nursing Curriculum — Stage I and Stage II*

1. National Technical Advisory Committee (NTAC)

The curriculum was developed on the basis of the national occupational analysis as established by the parameters of our study design and the suggestions from the original NTAC. (NTAC members serve for one year; the current list appears in Appendix II.)

2. Writer Consultants

As described earlier, a consultant group of nursing writers was employed to develop the Instructional Units for Stage I and Stage II. The AHPP staff spent considerable time conferring with the writers, most of whom had difficulty working from this new approach. In an effort to make the job easier and provide them with some structure, it was requested that they first establish behavioral objectives (general and specific) for the Instructional Unit, and then do a job breakdown on the procedures they were developing for each unit. The format required them to outline the *important steps* in each performance sequence of the procedure. Once this was accomplished, each step was then amplified by listing *key points* to clarify each important step. These key points helped the writers to integrate with the skills being taught the related anatomical and biological principles, microbiological concepts, communication skills, legal, ethical, and safety guidelines, as well as elementary problem-solving approaches. This method proved useful because it established a systematic approach for developing instructional materials, while making it imperative to eliminate extraneous material. In order to provide the students with a clear understanding of the purpose of each activity, as well as the ability to attain the established objectives, related information was incorporated in the Instructional Unit where applicable.

When the writers had completed these initial steps, it became easier to prepare the written tests and performance tests, all of which were correlated with the entire unit content as well as with the performance objectives. The basic format for the preparation of Instructional Units appears in Appendix III.

It is important to note that the 184 tasks found by the AHPP survey to be common to all practitioners of nursing (i.e., the basic nursing skills) were combined into a series of 36 Instructional Units for Stage I. It should also be pointed out that even though the student may plan to become a Basic Nurse Practitioner, she must be skilled and knowledgeable in the basic nursing skills before she proceeds to Stage II and then to Stage III, which are progressively more complex in nature. The remaining 122 tasks defined in the nursing survey are combined into a series of approximately 17 Instructional Units for Stage II.

Although the Project methodology prescribes curriculum development on the basis of tasks determined by the national survey, this in no way precludes the addition of other information deemed essential by instructors, nor the incorporation of information resulting from newly developed technologies. Allowance is also made for deletion of obsolete methods and procedures as they are replaced by newer ones.

The sequencing of instructional units has been established on the premise of progression from the simple to the complex.

3. Revisions and Editorial Work by AHPP Staff

Detailed review and editing of the materials were undertaken to verify facts and assure clarity and consistency of style. Performance checklists (see sample on Page 94) were devised for the purpose of assisting the teachers to observe whether the students have attained the identified behavioral objectives.

After the manuscripts had been reviewed and edited, they were typed and reproduced in draft form at the Project office for use in a pilot testing program.

D. *Testing Programs*

The site selected for the initial testing was St. John's Hospital, Santa Monica, California. The AHPP staff entered into a close working relationship with the nursing administration there: Mrs. Leasel Omer, Director of Nursing; Sister Anne, Associate Director of Nursing; and the clinical instructors, Miss Diane Vosburg (Coordinator), Sister Edward Marie, and Mrs. Arlene Kosberg.

The initial testing program began on November 15, 1970, with 17 students enrolled in the class. Although one dropped out after the first day because she was unable to make satisfactory baby-sitting arrangements, the remaining 16 students successfully completed the 8-week program. (In St. John's Hospital's previous traditional Nurse Aide classes, the dropout rate was approximately 30% .) The selection process was carried out by the hospital in its usual manner. It is gratifying to report that all 16 students were still employed at St. John's after more than three months of "monumentally successful" educational experience. The usual retention rate for St. John's Nurse Aides is about 70% after three months' employment.

Since completion of the pilot Nurse Aide program, St. John's Hospital has utilized the Instructional Units in five consecutive courses. As this is written, several members of the original class still are employed at St. John's. Several graduates have enrolled in RN programs. One graduate has reported that she successfully challenged the Fundamental Nursing I course in an Associate degree program.

Some of the guidelines AHPP developed during this pilot program are listed in Appendix IV. They may be helpful to others who are planning similar programs. Teacher's Guides were not prepared for the pilot program; the information needed by instructors was covered in general discussion as the course progressed. However, a Teacher's Guide now is available to accompany each Instructional Unit.

Some of the positive factors emerging from the program were:

1. High motivation demonstrated by both the students and the faculty, as evidenced by the increased performance capabilities of the students and faculty.
2. More rapid assimilation of the materials with higher performance abilities than among students from previous programs conducted by St. John's Hospital.
3. More individualized instruction time available to devote to students because of the utilization of the learning materials.
4. Continuing motivation demonstrated immediately by the fact that six of the graduates applied to RN schools for the fall of 1971.
5. Unusually low attrition rate: 16 out of 17 students (94%) successfully completed the course, as compared with 70% in the previous course.
6. Better observation of patients and more accurate and immediate reporting of patient problems than was the case with earlier graduates.
7. Favorable comments offered by Supervisors of Nursing on all aspects of performance. They emphasized how much better this group performed in comparison with earlier groups, and wanted to know what change in training was responsible for the superior outcome.
8. Questions from previous Nurse Aide graduates as to why the instructors gave this class so much more information, and why the class participants were such capable performers.
9. Frequent requests from pilot program students for additional clinical assignments when their scheduled lessons were completed.
10. Limited permission to allow students to move at their own rate of speed. (This is expected to be more practicable in future programs, because initial experience has permitted more preplanning to allow for students' varying rates of progress.)

11. Approval of this innovative approach to teaching expressed by the instructors. The new method proved most stimulating to the teachers, who had formerly used traditional techniques. AHPP's materials enabled the instructors to utilize their creative abilities in conducting observation and practice sessions, which resulted in increased teacher satisfaction and, once again, enhanced pupil response.

Both positive and negative comments and suggestions were contributed by students and faculty throughout the program. Their recommendations, wherever applicable, have been incorporated in the revisions.

Some negative factors emerging from the program are:

1. Insufficient preplanning to develop alternative assignments for the students who moved ahead rapidly.
2. Frustration experienced early in the program because the instructors had so little planning time during the day. (It was possible to solve this by alternating scheduled assignments.)
3. Some failure to follow the presentation format. All of the instructors and students agreed by the end of the program that it would have been more efficient and economical in terms of time to follow the proposed format.
4. Failure to complete Performance Checklists in time for the first test program. (These were available for subsequent programs.)
5. Difficulty experienced during the early weeks in coping with the new system and handling the logistics of working with students who were at varying stages in the curriculum.
6. No practice worksheets provided for the units, i.e., Charting, I and O, etc. These were developed by the instructors as they went along. (It is important for instructors to use their own worksheets and agency forms for this activity, in order that the students may learn to apply their experiences in the proper context.)

Since the initial testing program at St. John's Hospital, 17 additional test sites have been utilized in various parts of the country. A listing of the test sites appears in Appendix IV.

There is a steady flow of feed-back from the test sites. Several Nurse Aides from early programs are enrolled in LPN and RN programs. Two Nurse Aides trained by the entry-level AHPP curriculum have successfully challenged the Nursing Fundamentals I course in two different RN programs. At this date, these two students are highly motivated and doing well in their respective programs.

The entry-level curriculum will be published in May, 1972, by W. B. Saunders Co., Philadelphia, Pa., as *Nursing Skills for Allied Health Services,* Vol. 1 and Vol. 2. Content is summarized in Appendix VI and a sample Instructional Unit appears in Appendix VII.

E. *Continuing Activities in Curriculum Development*

A number of Instructional Units are in process of development for the Stage II curriculum. The tentative titles are:

1. Aseptic Technique
2. Irrigations and Instillations of Body Cavities
3. Application and Administration of Hot/Cold Compresses, Packs, Soaks
4. Application of Tourniquets
5. Catheterization (urinary)
6. Pharyngeal Suctioning (oral, nasal, tracheal)
7. Assist with Treatments and Examinations
8. Preparation and Administration of Medications
9. Care of the Tracheostomy Patient (suctioning, changing cannula and dressing)
10. Somatic Therapies (electric and insulin shock)
11. Insertion of Tubes (nasogastric, gavage)
12. Count Fetal Heart Tones; Use Fetal Monitoring Devices
13. Take Cultures (nose, throat, vaginal, wound)
14. Set up, Regulate, and Administer O_2 and Positive Pressure Treatments
15. Read Cardiac Monitors
16. Give and Read Skin Tests (Tine, Tetanus, Mantoux)
17. Basic Assessment System

As time permits, six sample patient care studies will be developed so that they can be utilized to teach basic problem-solving and decision-making for nurse practitioners.

III. Evaluation Design

The purposes of the evaluation are: (1) to provide a preliminary assessment of the effectiveness of the Stage I Nursing instructional materials (basic nursing skills); (2) to determine if the Instructional Units provide sufficient learning experiences (quantitatively and qualitatively) to enable the students to attain the performance objectives, or if there is a need to develop additional learning experiences for those students who are having difficulties but otherwise seem to meet the required criteria; (3) to develop student profile data which will describe the essential prerequisites, abilities and attitudes which are necessary for successful completion of the program; and (4) to evaluate the economic feasibility of this instructional program. The following methods implement the evaluation phase:

A. Utilization of the Unit Performance Tests to determine the student's ability to meet the unit performance objectives.

1. The Performance Test is given in a standardized test situation apart from other students.
2. The student performance is evaluated by means of a Performance Checklist that itemizes behavioral steps deemed necessary for successful attainment of the performance objectives. The checklist also contains questions related to the key points used.
3. The student performer is rated by an observer on a pass or fail basis.
4. The initial performance evaluation is conducted in the learning laboratory. Succeeding performance evaluations are done in the clinical setting.
5. Time-lapse performance evaluations may be done at intervals to determine if and when unsatisfactory performance levels occur.

B. Development of statistical information to describe the essential characteristics which could be expected to lead to successful completion of the program. Data include:

1. Student demographic information, to include education, socioeconomic, work experience, manual dexterity, and other basic indices.
2. Student attrition rates during the program.
3. Individual learning time and performance.

C. Development of statistical information through cost-benefit analysis to describe the cost of this program compared to traditional programs.

1. Overall attrition rates both as students and as employees.
2. Efficiency ratings of the employee.
3. Cost analysis of each program.

D. Other evaluative studies may be carried out on a continuing basis to determine:

1. Whether geographical and regional differences do exist among participants when classes are held in the various field sites.
2. Whether differences in proficiency and career pattern achievement will appear in a comparison study between graduates from the Allied Health Professions program and graduates from traditional programs.

IV. Future Plans for The Nursing Program

A. To complete the revisions of the draft Instructional Units for Stage II by August 1972.

B. To finalize plans for commercial production of Stage II materials.

C. To write supplementary grant proposals to permit completion of the nursing curriculum through the Associate degree level by the expiration date of the AHPP grant in September, 1972.

MEANINGFUL CHANGE: A CAREER MODEL FOR NURSE PRACTITIONERS*

For many years the nursing profession has tried—with small success—to meet the steadily increasing health needs of the nation. At the same time, nursing has sought to attain equal footing with other professions. This paper seeks to describe a developmental model that may assist in bringing closer both of these goals.

The Allied Health Professions Project is developing the curriculum for each occupation with two main objectives in mind: establishment of core curriculum where feasible, and career lattice or career sequence possibilities. For each of the occupational areas in which AHPP is active, national surveys have been conducted to identify the actual functions performed by the workers in their respective job titles. In the AHPP surveys, the forms have been filled out by the workers themselves. This is unlike many other occupational surveys, where administrators or department heads may respond to questionnaires. Then the survey data have been compiled so as to form the bases upon which the curricula, including core possibilities and career sequences, have been developed.

The national analysis of the nursing occupations revealed that 60 percent of all nursing functions are performed by all levels of nursing personnel—the Nurse Aide, LVN, and RN. These tasks are, in essence, the fundamentals of nursing.

The next 28 percent of the tasks comprise more complex activities, such as sterile techniques, giving medications, assisting in somatic therapies (electric and insulin shock), assisting with various treatments and examinations, identification of patient needs, interpretations of signs and symptoms, the teaching of simple health measures and procedures, and selecting the approaches to patient care. This 28 percent of nursing activities is carried out by the LVN-RN combination.

Procedures included in the remaining 12 percent of tasks in the national survey, which are identified as falling exclusively within the realm of the RN, are administrative techniques of planning patient care; assigning personnel; evaluating the quality of nursing care as well as employee performance and making appropriate adjustments in both areas; conducting educational programs for patients and employees; and utilizing complex nursing skills.

It should be emphasized that in the entire gamut of nursing activities, there are only six skills designated as "complex" and not permitted for the LVN, but assigned to the RN exclusively. These specific activities are: administration of IV medications and blood transfusions; reading fetal and cardiac monitoring devices; reading skin tests; tracheal suctioning; and nasogastric intubation.

---

*Adapted from a paper presented by Lucile A. Wood, R.N., M.S., before the Directors of Nursing/Hospital Council of Southern California workshop on "Implementation of the National Commission for Nursing and Nursing Education Report," Los Angeles, California, November 30, 1971.

Analysis of the educational preparation of RNs responding to the survey revealed that approximately 5 percent were Associate degree Registered Nurses; 83 percent were graduates of diploma programs; and 11 percent were Baccalaureate Registered Nurses. With this diversity of preparation, *all reported performing the same functions.* This would indicate that in many instances the graduates of Baccalaureate programs are not in fact operating at the higher level of performance one would expect of a nurse who has attained a higher level of academic achievement. These survey percentages of RN respondents, incidentally, are similar to those reported for graduates of the various types of Registered Nurse programs as published in the 1969 edition of *Facts About Nursing.*[1]

Studies of nursing and nursing education are not new. As far back as 1923, Josephine Goldmark published *Nursing and Nursing Education in the United States.*[2] In this and many other studies, stress has been laid on the need for more nurses, the need for better nurses, or the need for more and better nurses, and many efforts have been made to delineate curricula to meet these needs. In many such studies, excellence has been equated with the attainment of an academic degree.

In 1934 the Committee on the Grading of Nursing Schools, in *Nursing Schools Today and Tomorrow,*[3] recommended that nursing students receive a general education along with a high-quality professional education, emphasizing the Baccalaureate degree. In 1948 and again in 1953, Esther Lucile Brown and Margaret Bridgman, in their respective publications, *Nursing for the Future*[4] and *Collegiate Education for Nursing,*[5] described essentially the same problems in nursing and made similar recommendations.

In its 1965 Position Paper, the American Nurses' Association stated that the Baccalaureate degree should be the basic educational attainment of the professional nurse. A similar view was presented in 1970 in the *National Commission Study for Nursing and Nursing Education.*[6] In addition, the Commission Study advocated that the choice between distributive and episodic care be made at the time of entry into the nursing program, a proposal which stipulates the LVN as the base of the career sequence

---

[1]American Nurses' Association. *Facts About Nursing.* New York: American Nurses' Association, 1969, p. 81.

[2]Josephine Goldmark. *Nursing and Nursing Education in the United States.* New York: The Macmillan Co., 1923.

[3]Committee on the Grading of Nursing Schools. *Nursing Schools Today and Tomorrow.* New York: National League for Nursing Education, 1934.

[4]Esther Lucile Brown, *Nursing for the Future.* New York: Russell Sage Foundation, 1948.

[5]Margaret Bridgman. *Collegiate Education for Nursing.* New York: Russell Sage Foundation, 1953.

[6]Jerome P. Lysaught. *An Abstract for Action.* (Report of the National Commission for Nursing and Nursing Education.) New York: McGraw-Hill Book Co., 1970.

in nursing. Distributive nursing care, it will be recalled, emphasizes the prevention of disease and the maintenance of health outside an institution, while episodic care focuses on curative and restorative care for persons with diagnosed pathology.

Parenthetically speaking, one may question the advisability of requiring young persons to make such a career choice at a restrictive point in time. With the prospect of high school graduation after 11 years, at a possible age of 16, it seems premature for young prospective nursing students to be forced to specify the limits of their careers at the very start of their educational efforts. The decision about area of practice to follow could be made more reliably at the completion of the Basic Nurse Practitioner program, rather than at the entry-point of the nursing career, as was suggested in the Commission Report. The Basic Nurse Practitioner concept will be discussed later.

Regardless of the scope of education and training, the ambitious and intelligent practitioner will be exposed to a variety of areas of practice and will find opportunities for acquiring and exercising higher levels of skill. This, in turn, affords the opportunity to make a real choice of functions, whether through broader experience, in-service training, or a return for additional education, and thus the Basic Nurse Practitioner is enabled to develop both personal competencies and professional capabilities based on a combination of education and experience.

Unlike the too-often rigidly compartmented programs of nurse education, the proposed model of nurse education based on function should provide opportunities for advancement and the development of new skills in line with abilities and interest. A schematic of the proposed program appears on the following page. It is presented not with the notion that it gives all the answers, nor is it at this point a final effort. It merely represents what seems to be a possible way for the profession of nursing to progress on the basis of some specific facts that have emerged from the studies mentioned here, and from personal observations.

The development of the nursing career on the basis of nursing functions at successive stages is seen as a means of attaining true professional status for the nursing practitioner. The term "function" is used here as meaning nursing activities and their outcomes as they relate to helping an individual patient, student, or practitioner to establish an optimal relationship with the surrounding environment.

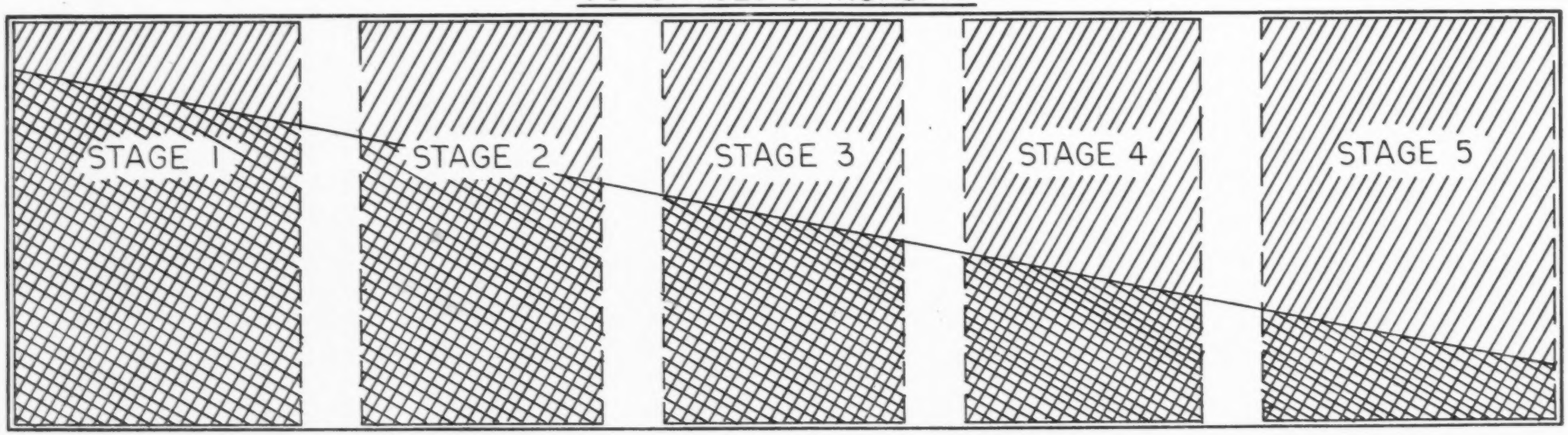
Stage I of the model is the entering curriculum in nursing. It includes the fundamental nursing skills as reflected in the AHPP national survey, plus a moderate amount of related technical and scientific information in the physical and behavioral sciences, together with a minimum of general knowledge. At this stage the beginning nurse has an opportunity to learn and practice the basic nursing skills until a moderate competence is achieved. This stage is built on the AHPP information which indicates that 60 percent of all activities are common to all the nursing practitioners: NA, LVN, and RN. The curriculum for the entry stage comprises 36 Instructional Units incorporating the 184 activities.

CAREER SEQUENCE FOR NURSING OCCUPATIONS

STAGES OF NURSING

STAGE 1	→	STAGE 2	→	STAGE 3	→	STAGE 4	→	STAGE 5
25%		50%		15%		9%		1%
(500,000*)		(1,000,000*)		(300,000*)		(180,000*)		(20,000*)

KNOWLEDGE/SKILLS RELATIONSHIP
TO STAGES OF NURSING



*PREDICATED ON BASIS OF TOTAL
NURSING POPULATION OF 2,000,000

= KNOWLEDGES

= SKILLS

AHPP 3·72

LAW/JKH

These units are currently being tested throughout the country in 18 settings in various programs, including Basic Nurse Aide and Nurse Aide Staff Development programs, as the Fundamental Nursing Skills in LVN, Associate and diploma nursing programs, as well as in the Basic Health Perspective Course at Johns Hopkins Center of Allied Health.

Stage II of the Career Model prepares the Basic Nurse Practitioner. Included in this stage are the remaining 40 percent of activities identified by the survey. These activities include more complex nursing skills and the beginning theoretical development relating to human functions, combined with beginning theory and practice in problem-solving, decision-making, and communication skills.

The proposed model for Stage II offers the possibilities of combining the strengths of the present LPN, Associate degree, diploma, and, in some instances, Baccalaureate curricula, to develop a competent Basic Nurse Practitioner based on function.

Why not prepare one basic practitioner who would have the necessary knowledge and skills to identify the needs of the patient, to solve problems and make decisions on the basis of possible alternatives, and to take responsibility for the outcome of such action?

If this Basic Nurse Practitioner (the familiar descriptive titles are avoided) could become the Stage II in the nursing career sequence, then it would be necessary to have only one nurse practitioner license. This would help eliminate the disagreements within nursing over the terms "technical" and "professional," and the various licensed titles in nursing (LPN and RN). If the nurse practitioner elected to advance in the career sequence, it would be because he or she wanted to change function in the setting.

Stage III of the Model would provide the beginning skills and knowledge to teach, administer, or consult in a specialty area. In addition to increased theoretical knowledge in the specialty area, the student would acquire knowledge of basic administrative and educational methodologies. Stage III graduates could be employed as beginning faculty for the entry stage and nurse practitioner programs, that is, Stages I and II of the Career Model, or in beginning administrative positions in health agencies. In the time devoted to attain it, the present Baccalaureate degree may be comparable to the proposed Stage III. However, it is not at all certain that two years are needed to complete this phase.

If one's aim is to prepare a nurse to function at a certain stage, a degree may or may not be necessary. At this point, the question is debatable. As a case in point: after completion of the Stage II Basic Nurse Practitioner curriculum, the individual may desire to take one of several additional courses to increase knowledge and skills in a specific area; e.g., critical care nursing, inhalation therapy, pediatric nurse assistant or associate, etc. These courses could result in certification or recognition in the specialty area apart from a degree. This recognition could also be granted through the Academy of Nursing, as proposed in the Commission Report.[7]

---

[7]Lysaught, *op. cit.*

It is possible to foresee a time when practitioners in all the clinical therapies can proceed through the Nursing Stages I and II curricula and then move into another area. Wouldn't it be of great benefit to the patient to have all of the clinical therapy practitioners well grounded in basic nursing skills? And wouldn't it save nursing a great deal of time now spent in trying to define what nursing is all about? With this model, nursing could provide higher quality service to the patients, and at the same time attain professional stature.

Stage IV in the model would prepare teaching faculties for the Stage II and Stage III programs, as well as administrative personnel for the large medical centers and health agencies. Beginning research methodology would be offered at this point in the curriculum. This is necessary so that these graduates could become strong supporters of research in nursing, and could serve to identify clinical nursing problems for research. The curriculum at this stage would be of an advanced academic nature, including teaching and administrative techniques which would be applied specifically to the areas of nursing education and nursing practice.

In other words, the Stage IV curriculum would not at this time include high-level nursing theory. However, this would be a strong possibility for some future date, when the profession of nursing has a well developed body of scientific nursing knowledge. Such knowledge would be attained when the next stage of this model is truly realized, with all its ramifications.

The Stage V curriculum would prepare nurse researchers and would be on a level with the present Doctoral programs. The function of these graduates would be to spend time and effort on nursing research for the development of a scientific body of nursing knowledge. As is well known, it is in this one area that nursing falls behind other professions.

Such a body of nursing knowledge could improve the quality of nursing practice by setting up a system of assessing and analyzing patient needs and selecting appropriate courses of action. This would assure the patient of high-level expert nursing intervention which would assist him in retaining or regaining his optimal state of health, or meeting death with lessened fear.

These conclusions are based upon the observations of the UCLA Allied Health Professions Project and other recent nursing investigations: The Commission Report; the California Bureau of Public Health Nursing's response to ACR 195;[8] the two recent volumes of *Nursing Reconsidered* by Esther Lucile Brown;[9] and present efforts throughout the country to revise Nurse Practice Acts. It seems timely to propose a model of nursing based on functions of the nurse practitioner. In the final outcome, this may or may not be accompanied by an educational degree or degrees.

---

[8]California Bureau of Public Health Nursing. *A Report to the 1971 Legislature on Levels and Combinations of Skills for the Nursing Professions Pursuant to the 1970 Assembly Concurrent Resolution 195.* Berkeley: California State Department of Public Health, February 8, 1971.

[9]Lucile Esther Brown. *Nursing Reconsidered. Part I: The Professional Role in Institutional Nursing; Part II: The Professional Role in Community Nursing.* Philadelphia: J. B. Lippincott Co., 1971.

The five-step proposal presented here is seen as a sound method for developing nurse practitioners who could give nursing care in any agency. More important, each stage would include increasing and cumulative areas of competence in nursing practice, in decision-making, in problem-solving, and in administrative, teaching, and communication skills. In actual practice, everyone in nursing already is expected to set priorities, to solve problems, to be accountable for decisions, and to teach health practices to the patient, relatives, and friends in the community. It seems imperative, therefore, that these skills and knowledge be offered at every stage of the nursing curriculum. Each stage of the curriculum would build on the content of the previous stage, with more complex theoretical content added at each succeeding stage.

Let us briefly review the stages of practice based on function as outlined in this model and with this, present an estimation of the percentage of representation in the total nurse population of each stage.

1. Stage I would prepare the entry level nursing practitioner in the fundamentals of nursing. This group would make up 25 percent of the nursing practitioners.
2. Stage II would prepare the Basic Nurse Practitioner who would carry the bulk of the direct nursing services to the patient. This group would comprise 50 percent of the total nursing work force.
3. State III would prepare the beginning nurse educator, administrator, or consultant in a specialty area. This group would represent 15 percent of the nursing population.
4. Stage IV would prepare the teaching facilities for the mid-level programs as well as the nursing administrators for the large medical centers and other health agencies. Nine percent of the nurse population would be needed to fill these pivotal positions.
5. Stage V would prepare the nurse researcher. If 1 percent of the nursing population could be engaged in nursing research, a vast improvement in clinical and other nursing practice could be anticipated within the next one or two decades.

The results of the application of a model of nursing based on function would:

1. Prepare better nursing practitioners at each stage.
2. Permit widely differing functions at each stage, which would more precisely define curriculum content and the ultimate utilization of personnel.
3. Eliminate the present conflict among the various stages of nursing practice, from the NA to the Ph.D.
4. Permit a basic nursing license based on function, and provide a means to continue education at any time that needs and desires produced a change in career goals.
5. Avoid duplication and overlapping of content, probably shortening the time needed to achieve a given stage of practice. Although the length of time might be diminished, we could logically expect a better equipped performer of nursing practice and one with a sound base of theoretical knowledge.

It should be emphasized that no easy application of the model is foreseen. It does, however, provide a structure which nursing and its affiliated disciplines could use as a frame of reference in working out solutions for specific areas of difference.

No reference has been made to the setting in which the educational process could take place, e.g., a college, adult education, clinical agency, correspondence course, extension course, or by television. This omission is intentional. It seems clear that *all* available sites must be utilized for maximum efficiency and effectiveness, and the selection of setting is left open to the educational planners and providers.

Another and considerably more knotty a problem that must be worked out is that of transferability of credit from one setting to another as well as from one stage of the model to succeeding stages. A workable solution to this problem alone will serve to speed up the preparation of nurse practitioners in order to meet mounting health requirements.

References to present job titles and current categories of nursing practitioners have been avoided, since differentiation must be decided upon by the nurses themselves. It is very probable that present designations will be altered significantly with implementation of the proposed five-stage sequence.

The time dimension for completion of the instruction comprising each stage also has been open-ended. If, in fact, we are committed to individualized learning, we must permit individuals to progress at their own rates of speed. Thus, the time dimension will become a relative matter, based upon successful performance by the learner.

Licensure and/or certification policies and procedures also will require modification through the cooperation of nursing practitioners, educators, and legislators, if nursing is to meet the ever more pressing demands for nursing services.

In short, the major elements of educational setting, titles, transferability of credit, time, and licensure have been left open for discussion and compromise among all nursing practitioners and their affiliated disciplines.

In closing, if this model were adopted, we could expect nursing practitioners to present themselves for employment with predictable capabilities; that is, any practitioner reaching Stage II could be expected to perform at a predetermined level of proficiency. Likewise, if a practitioner has reached a particular stage in education, then he or she would know exactly what his or her level of capability was because classification is based on function. Both the practitioner and the hiring agency would be immediately aware of the position in which the person could competently function. Such an approach would realistically utilize each and every member of the nursing work force, directing their efforts toward providing high quality nursing care.

BIBLIOGRAPHY

American Nurses' Association. *Facts About Nursing.* New York: American Nurses' Association, 1969, p. 81.

Bridgman, Margaret. *Collegiate Education for Nursing.* New York: Russell Sage Foundation, 1953.

Brown, Esther Lucile. *Nursing for the Future.* New York: Russell Sage Foundation, 1948.

Brown, Esther Lucile. *Nursing Reconsidered, Part I: The Professional Role in Institutional Nursing. Philadelphia: J.B. Lippincott Co., 1970, p. 13.*

Brown, Esther Lucile. Nursing Reconsidered, Part II: The Professional Role in Community Nursing. Philadelphia: J. B. Lippincott Co., 1971.

California Bureau of Public Health Nursing. *A Report to the 1971 Legislature on Levels and Combinations of Skills for the Nursing Professions Pursuant to the 1970 Assembly Concurrent Resolution 195.* Berkeley: California State Department of Public Health, February 8, 1971.

Committee on the Grading of Nursing Schools. *Nursing Schools Today and Tomorrow.* New York: National League for Nursing Education, 1934.

Goldmark, Josephine. *Nursing and Nursing Education in the United States.* New York: The Macmillan Co., 1923.

Goldsmith, Katherine L., Mary E. Jensen, Lucile A. Wood, and Don Zimmerman. *A Study of the Nursing Occupations.* Los Angeles: UCLA Allied Health Professions Project, April 1970, p. 13.

Lysaught, Jerome P. *An Abstract for Action,* (Report of the National Commission for Nursing and Nursing Education). New York: McGraw-Hill Book Co., 1970.

Wood, Lucile A., and Thomas E.Freeland. *Progress Report, Nursing Occupations.* Los Angeles: UCLA Allied Health Professions Project, April 1971, pp. 13-31. (Out of print.)

APPENDIX I

TASK BREAKDOWN BY FUNCTIONAL AREAS

The Allied Health Professions Project mailed 450 questionnaires to individuals in nursing assignments in health care facilities from coast to coast. Of these, 398 were returned—88 percent of the total survey sample.

Based on this response, the survey tasks performed by *all categories* of nursing personnel have been arranged in order of reported frequency of performance. A second tabulation provides a frequency ranking for tasks performed by the *LPN and the RN* (Page 37). A third listing shows frequency for those tasks performed by *RNs only* (Page 42).

In reporting frequency, those tasks performed most often are ranked numerically, that is, 1 represents most frequent, 2 indicates second most frequent, etc. The tasks showing the highest frequency numbers are those performed least often.

After each numbered task there is a column at the right margin which indicates the *Criticality* rating. Criticality or error cost is defined by the Allied Health Professions Project as the cost of improper execution of the task, in terms of patient life and well-being, length of hospital stay, or damage to equipment. The Criticality rating was established by the members of the National Technical Advisory Committee for the Nursing Occupations (Appendix II).

TASK BREAKDOWN FOR ALL PERSONNEL, BY FUNCTIONAL AREAS

FUNCTIONAL AREA I: Diversional, Therapeutic and Assistance Activities (9 tasks)

Frequency		Criticality
1.	Receive and deliver messages and/or mail to patients. (NON)*	1.5
2.	Obtain and deliver items for patients personal use. (NON)*	1.33
3.	Assist in placing telephone calls.	1.16
4.	Obtain and deliver supplies for patients' entertainment or recreation. (NON)*	1.5
5.	Assist and/or participate in recreational activities.	2.5
6.	Read to patients.	1.33
8.	Assist in writing letters and messages.	1.5
9.	Assist and/or participate in occupational activities with patients. (NON)*	2.0

FUNCTIONAL AREA II: Safety and Comfort A. Patient Protection (19 tasks)

1.	Adjust side rails.	2.16
2.	Adjust height of bed.	2.16
3.	Wash hands.	3.66
6.	Count, sign for, and place patient's possessions in safe place. (NON)*	2.33
8.	Explain and apply smoking regulations.	3.0
10.	Use precautions in administering and handling drugs, etc.	4.5
11.	Apply restraints.	3.0
13.	Obtain patient and/or family consent for treatment. (NON)*	3.5
14.	Dispose of contaminated materials and equipment. (NON)*	3.66
15.	Take into and remove equipment and supplies from contaminated room.	3.66
16.	Apply and remove gown and mask.	3.66
19.	Prepare accident and safety reports.	3.66

FUNCTIONAL AREA II: Safety and Comfort B. Personal Hygiene and General Comfort (23 tasks)

1.	Change soiled lines and clothes.	2.33
2.	Assist patient with dressing and undressing.	1.83
3.	Make patient's bed, occupied.	2.16

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

FUNCTIONAL AREA II, Continued

Frequency		Criticality
4.	Make patient's bed, unoccupied.	1.5
5.	Give or assist patient with oral hygiene.	2.83
6.	Give or assist patient to take bath.	2.16
7.	Give backrubs.	2.16
8.	Comb patient's hair.	1.66
9.	Use of sheepskins, lambswool pads.	2.66
10.	Make patient's recovery, anesthetic bed.	1.66
11.	Give general skin care to patients in restraints.	3.16
12.	Give general skin care to patients with decubitus ulcers.	3.83
13.5	Use footboards.	2.66
13.5	Give general skin care to patients in casts.	3.0
15.	Give general skin care to comatose or semicomatose patients.	3.83
17.	Care for or assist patient to care for toenails and fingernails.	2.16
18.	Use air rings, doughnuts.	2.83
19.	Use overbed cradles.	2.66
20.	Assist with and/or shave male patients.	2.5
21.	Use trochanter rolls, sandbags.	2.66
22.	Alternate pressure mattresses.	3.0
23.	Give or assist patient in shampoo.	1.66

FUNCTIONAL AREA II: Safety and Comfort C. Religious and Spiritual Care (6 tasks)

1.	Assist patient in observing religious dietary restrictions.	3.33
2.	Prepare patient to see clergy.	2.33
3.	Prepare patient to receive sacraments.	2.66
5.	Assist patient in religious rites.	2.66
6.	Participate, assist in administration of sacraments.	2.83

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA II: Safety and Comfort D. Patient Need for Movement (15 tasks)

Frequency		Criticality
1.	Assist patient to get in and out of bed.	3.33
2.	Turn patient.	3.33
3.	Assist patient to transfer from bed to chair.	3.5
4.	Assist patient in walking.	3.33
5.	Place patient in correct body alignment.	3.66
6.	Transport patient in wheelchair. (NON)*	2.83
7.	Assist patient to dangle.	3.33
8.	Transport patient on stretcher. (NON)*	2.83
12.	Set up and maintain traction.	4.0
13.	Apply and remove braces.	3.5
15.	Use mechanical devices (Hoyer lift) to move patient.	3.16
16.	Assist patient following radical mastectomy.	4.0
17.	Operate Stryker and Foster Frames.	3.83
20.	Operate circle beds.	4.0
21.	Assist patient in Buerger's Exercise.	3.83

FUNCTIONAL AREA III: Nutrition and Elimination A. Patient Need for Food and Fluids (18 tasks)

1.	Position patient for meals.	2.33
2.	Prepare and give between-meal nourishment of liquids, e.g., water, juice, coffee.	2.16
3.	Prepare food so patient may assist self.	2.33
4.	Observe, measure, and record food and fluid intake.	3.16
5.	Collect food trays. (NON)*	1.16
6.	Serve food trays. (NON)*	1.83
7.	Prepare and give solid foods, e.g., pudding, crackers, toast.	2.16

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA III, Continued

Frequency		Criticality
8.	Feed adult patient.	2.66
11.	Ask patient about cultural, religious, personal preferences for food. (NON)*	1.83
12.	Assist infant patients to eat.	3.33
14.	Put food on trays. (NON)*	1.5
15.	Feed patient (children).	2.83

FUNCTIONAL AREA III: Nutrition and Elimination B. Patient Need for Elimination (6 tasks)

1.	Assist patient in using bedpan.	2.33
2.	Assist patient in going to bathroom.	2.66
3.	Observe, measure, and record output.	2.83
4.	Assist patient in using urinal.	2.33
5.	Assist patient in using bedside commode.	2.66

FUNCTIONAL AREA III: Nutrition and Elimination C. Patient Need for Oxygen Transport and Exchange (18 tasks)

1.	Assist patient to turn, cough, deep breathe.	3.16
9.	Set up and regulate humidifier.	3.5
18.	Give artificial respiration.	4.66

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities A. Treatments and Procedures (31 tasks)

1.	Empty drainage bottles and bags.	2.66
2.	Check and maintain drainage tubing without suction, e.g., urinary, catheters, T-tube.	3.33
4.	Care for specimens.	2.33
5.	Irrigate rectum (enema)	2.16

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA IV, Continued

Frequency		Criticality
6.	Assist with and/or apply ace bandages and elastic stockings.	3.0
12.5	Assist with and/or apply non-sterile dressing T, straight, scultetus, breast, and triangular (sling) binders.	2.83
16.	Assist with and/or apply non-sterile dressing roller bandages.	2.83
17.	Assist with and/or apply non-sterile dressing rib belts.	3.16
28.	Assist with and/or apply splints.	3.16
31.	Apply defibrillator. (NON)*	4.83

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities B. Application of Heat, Cold, Medicated Therapeutic Agents (20 tasks)

1.	Apply ice bags.	3.66
2.	Apply heating pads. (no Judgment)*	3.5
3.5	Administer sitz bath.	3.5
3.5	Apply thermal blanket.	2.83
5.	Apply hot water bottle.	3.5
11.	Administer tepid baths.	2.83
16.	Apply heat cradles.	3.66
17.	Administer alcohol baths.	2.83
18.	Apply infra-red lamps. (NON)*	4.0
19.	Apply medicated bath.	3.66
20.	Apply ultraviolet lamps. (NON)*	4.0

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities C. Medications (6 tasks)

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities D. Diagnostic Activities (21 tasks)

Frequency		Criticality
1.	Count respirations.	3.0
2.	Count pulse at pressure points (radial).	3.0
3.	Take oral temperature.	2.83
4.	Collect urine specimen.	2.66
5.	Take rectal temperature.	3.0
6.	Test urine for sugar and acetone.	3.66
7.	Collect stool specimen.	2.66
9.5	Collect sputum specimen.	2.66
9.5	Do routine urinalysis. (NON)*	2.66
11.	Take temperature: axillary.	2.83
13.	Collect gastric specimen.	2.83
15.	Assist with and/or take x-rays. (NON)*	4.5
17.5	Assist with and/or take electocardiograms. (NON)*	4.83
20.	Draw sample of blood. (NON)*	3.66

FUNCTIONAL AREA V: Observation and Communication A. Observation, Analysis, Interpretation (14 tasks)

1.	Observe objective signs and symptoms of illness, disorder, body malfunctions, e.g., skin rashes, swelling, bleeding.	3.5
2.	Observe patient's general physical condition, e.g., color of skin and mucous membranes, condition of skin, eyes.	3.5
3.	Observe general emotional condition, e.g., facial expression, expression of eyes, posture, quality of voice, consciousness.	3.5
5.	Observe positive physical and emotional responses to treatments, medications, nursing care, e.g., decreased bleeding.	4.0
6.5	Observe general behavior, e.g., conversation; interactions with family, personnel, patients; eating habits; biting nails.	3.5
8.5	Observe negative physical and emotional responses to treatments, medications, nursing care, e.g., decreased communication.	4.0

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA V, Continued

Frequency		Criticality
8.5	Observe patient's general appearance, e.g., dress, condition of clothing, presence or absence of body ordors, use of make-up.	3.16
11.	Make plan for patient care, e.g., identify problem or need, secure information about need or problem.	3.5
12.	Identify strengths, weaknesses in patient care.	3.33
13.	Seek guidance to understand and improve performance in patient care.	3.33
14.	Suggest and/or make changes in plan of care.	3.5

FUNCTIONAL AREA V: Observation and Communication B. Oral and Written Communication (50 tasks)

1.	Record output--drainage, discharge, urine, bowel movements.	2.83
2.	Record nursing care.	3.0
3.	Record temperature, pulse, respiration, blood pressure.	2.83
4.	Read and obtain information from charts.	2.5
5.	Record intake--oral liquids and solids, parenteral.	2.83
6.	Talk with patient. (no Judgment)*	2.5
7.	Record observations of behavior, responses to therapy and care.	3.5
8.	Obtain information from patient.	2.16
9.	Obtain guidance from head nurse.	2.83
10.	Record tests, treatments, procedures.	3.0
11.5	Talk with personnel.	2.5
11.5	Obtain information from personnel.	2.66
13.	Record height, weight.	2.66
14.	Talk with family.	2.5
15.5	Give information to patient.	3.0
15.5	Attend unit report.	1.83

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR ALL PERSONNEL
CONT'D

FUNCTIONAL AREA V B, Continued

Frequency		Criticality
17.	Orient patient, family, to hospital, e.g., routines, regulations, physical facilities, personnel.	3.33
18.	Give information to personnel.	3.0
19.	Obtain information from family.	2.66
20.	Talk with team leader to obtain guidance.	2.83
21.	Talk with supervisor to obtain guidance.	2.83
22.5	Record physician's orders.	3.66
22.5	Write reports on patient's condition.	3.16
25.	Teach patient, family, personnel general hygiene in relation to prevention of illness and promotion of health.	3.0
27.5	Give information to family.	3.0
29.	Talk with health team to obtain information.	2.66
30.5	Talk with health team. (no Judgment)	2.5
30.5	Teach patient, family, personnel prevention of accidents.	3.66
33.	Give information to health team.	3.0
40.	Teach patient, family, personnel in relation to rehabilitation activities of daily living.	3.66
41.	Read and obtain information on patient's condition and care from procedure books.	2.5
42.5	Write report on patient census.	2.33
47.	Attend nursing care conferences.	2.33
48.	Write reports on accidents, incidents.	3.16
49.	Teach patient, family, personnel in relation to prevention of cancer.	3.33
50.	Attend demonstrations of procedures and equipment.	2.0

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping
A. Administration and Coordination (31 tasks)

2.	Assist team members in giving nursing care.	2.83
3.	Deliver specimens to laboratory. (NON)*	2.16

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

FUNCTIONAL AREA VI A, Continued

Frequency			Criticality
4.	Check working order of equipment.		3.33
6.	Deliver requisitions, credits, charges to other departments.	(NON)*	1.83
12.	Inventory emergency supplies. equipment, drugs.		2.83
22.	Take inventory of unit linen.		2.0
29.	Make recommendations for service or referral.		2.5

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping
B. Housekeeping Functions (13 tasks)

1.	Distribute supplies and equipment to patient's room, e.g., linen thermometers, dressings, foot boards. (NON)*	1.83
2.	Clean equipment and utensils, glassware, e.g., suction machine, wash basins, water glasses, pitchers. (NON)*	1.83
3.	Clean service areas on unit, e.g., service room, treatment room, utility room, kitchen. (NON)*	1.83
4.	Obtain and deliver supplies and equipment, e.g., sheepskins, hot water bottles, suction machines, utensils. (NON)*	1.83
5.	Clean patient's unit furniture. (NON)*	1.83
6.	Stock equipment and supplies, e.g., utensils, paper goods, linen, disposable materials. (NON)*	1.83
7.	Care for flowers, e.g., arrange and distribute. (NON)*	1.33
8.	Clean patient's unit room. (NON)*	1.83
9.	Assemble patient linen packs. (NON)*	1.83
10.	Sterilize equipment and supplies in autoclave, e.g., surgical instruments, linen packs. (NON)*	3.16
11.	Sterilize equipment by boiling water or placing in solutions, e.g., surgical instruments. (NON)*	3.16
12.	Clean patient's unit bathroom. (NON)*	2.0
13.	Assemble surgical or obstetrical packs, e.g., linen packs, instrument packs. (NON)*	2.33

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR RN AND LVN(LPN) BY FUNCTIONAL AREAS

Frequency		Criticality
	FUNCTIONAL AREA I: Diversional Theraputic and Assistance Activities (9 tasks)	
	FUNCTIONAL AREA II: Safety and Comfort A. Patient Protection (19 tasks)	
4.	Open sterile packages and packs.	4.0
5.	Pour sterile solutions.	3.83
7.	Handle sterile equipment.	3.83
9.	Apply sterile dressings and bandages.	4.0
12.	Apply sterile gloves.	3.66
17.	Do sterile scrub.	3.83
18.	Apply sterile gown.	3.66
	FUNCTIONAL AREA II: Safety and Comfort B. Personal Hygiene and General Comfort (23 tasks)	
16.	Give general skin care to patients in traction.	3.83
	FUNCTIONAL AREA II: Safety and Comfort C. Religious and Spiritual Care (6 tasks)	
	FUNCTIONAL AREA II: Safety and Comfort D. Patient Need for Movement (21 tasks)	
9.	Assist patient in active exercise.	3.66
10.	Assist patient in passive exervise.	3.66
11.	Assist patient in range of motion.	3.66
	FUNCTIONAL AREA III: Nutrition and Elimination A. Patient Need for Food and Fluids (18 tasks)	
9.	Discontinue intravenous fluids.	3.0
16.	Administer nasogastric.	4.16
17.	Administer gavage.	4.16
18.	Administer gastrostomy.	4.00

TASK BREAKDOWN FOR RN AND LVN(LPN)
CONT'D

FUNCTIONAL AREA III: Nutrition and Elimination B. Patient Need for Elimination (6 tasks)

Frequency		Criticality
6.	Remove fecal impactions.	3.33

FUNCTIONAL AREA III: Nutrition and Elimination C. Patient Need for Oxygen Transport and Exhange (18 tasks)

2.	Administer oxygen mask.	3.5
3.	Administer oxygen catheter.	3.83
5.	Suction patient's throat passage.	3.66
6.	Suction patient's nose passage.	3.5
7.	Discontinue blood transfusion.	3.16
8.	Regulate blood transfusion.	4.16
10.	Administer oxygen: positive pressure.	4.0
11.	Assist patient with postural drainage.	3.66
13.	Suction patient's tracheotomy.	4.16
14.	Remove and clean inner cannula of tracheotomy.	4.16
15.	Set up and regulate croupette.	3.5
17.	Administer oxygen tent.	3.66

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities A. Treatments and Procedures (31 tasks)

3.	Connect catheters and tubing to drainage.	3.16
7.	Position and hold patient for rectal, vaginal, or proctoscopic.	2.16
8.	Set up equipment for rectal, vaginal, or proctoscopic.	2.5
9.	Screen and drape patient for rectal, vaginal or proctoscopic.	2.16
10.	Assist physician with equipment for rectal, vaginal, proctoscopic.	2.16
11.	Check and maintain drainage tubing with suction, e.g., chest gastric.	3.83
12.5	Insert urinary catheters.	4.0
14.	Irrigate bladder.	3.33

FUNCTIONAL AREA IV, Continued

Frequency		Criticality
15.	Instill solutions into eye, ear, nose.	3.16
18.5	Instill solutions into bladder.	3.16
18.5	Irrigate wound.	3.5
20.	Instill solutions into wound.	3.33
21.	Vaginal (douche).	2.16
22.	Irrigate eye, ear, throat.	2.16
23.	Apply tourniquet.	4.16
24.	Instill solutions into vagina.	3.16
25.	Irrigate colostomy.	3.66
26.5	Irrigate stomach.	3.5
26.5	Instill solutions into stomach.	3.33
29.	Assist with somatic therapies, e.g., insulin shock treatments, electroconvulsive treatments.	4.33

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities B. Application of Heat, Cold, Medicated Therapeutic Agents (20 tasks)

6.	Apply cold packs.	4.0
7.	Apply hot packs.	4.0
8.	Apply hot compresses.	3.66
9.	Apply cold compresses.	3.66
10.	Administer hot soaks.	3.66
12.	Administer cold soaks.	3.66
13.	Apply medicated compresses.	3.66
14.5	Apply medicated packs.	3.5
14.5	Administer medicated soaks.	3.66

TASK BREAKDOWN FOR RN AND LVN(LPN)
CONT'D

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities C. Medications (6 tasks)

Frequency		Criticality
1.	Give oral medications.	4.5
2.	Prepare medications.	4.33
3.	Give intramuscular medications.	4.5
4.	Give rectal medications.	4.5
6.	Give inhalation medication.	4.5

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities D. Diagnostic Activities (21 tasks)

8.	Count pulse: apical.	3.16
12.	Count fetal heart tones.	3.5
16.	Do nose and throat cultures.	3.33
17.5	Do wound cultures.	3.33

FUNCTIONAL AREA V: Observation and Communication A. Observation, Analysis, Interpretation (14 tasks)

4.	Identify patient needs and/or problems, e.g., food, oxygen, affection, recognition.	3.83
6.5	Identify approaches and/or solutions for needs and/or problems, e.g., change patient's position, praise for efforts.	3.83
10.	Interpret patient's signs, symptoms, behavior, e.g., increase in jaundice, pacing of floor.	4.16

FUNCTIONAL AREA V: Observation and Communication B. Oral and Written Communication (50 tasks)

24.	Teach patient, family, personnel in relation to objective of nursing care of current illness, convalescence.	3.66
26.	Teach patient, family, personnel in skin care.	3.83
27.5	Teach patient, family, personnel physician's plan of care.	3.66
32.	Teach patient and family, personnel, in the prevention of infection.	3.33
34.	Teach patient, family, personnel in relation to body alignment.	3.83

TASK BREAKDOWN FOR RN AND LVN(LPN)
CONT'D

FUNCTIONAL AREA V B, Continued

Frequency		Criticality
35.	Teach patient, family, personnel exercise ambulation.	3.83
36.	Read and obtain information on patient condition and care from reference books (nursing).	2.16
37.	Teach patient, family, personnel in nutrition.	3.5
38.	Teach patient, family, personnel in care of equipment.	3.66
39.	Teach patient, family, personnel in relation to treatments.	4.0
42.5	Teach patient, family, personnel in relation to medications.	4.0
44.	Teach patient, family, personnel in relation to bowel and bladder training.	3.66
45.	Teach patient, family, personnel in relation to physical examination.	3.16
46.	Read and obtain information on patient from dietary manuals.	2.5

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping
A. Administration and Coordination (31 tasks)

10.	Assist physician with rounds to patients.	3.0
14.	Inventory of unit supplies of dressings, tape.	2.0
15.	Inventory unit's disposable and non-disposable equipment.	2.0

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping
B. Housekeeping Functions (13 tasks)

TASK BREAKDOWN FOR RN'S BY FUNCTIONAL AREAS

Frequency		Criticality
FUNCTIONAL AREA I:	Diversional Theraputic and Assistance Activities (9 tasks)	
7.	Assist with individual and group therapy.	3.0
FUNCTIONAL AREA II:	Safety and Comfort A. Patient Protection (19 tasks)	
FUNCTIONAL AREA II:	Safety and Comfort B. Personal Hygiene and General Comfort (23 tasks)	
FUNCTIONAL AREA II:	Safety and Comfort C. Religious and Spiritual Care (6 tasks)	
4.	Call clergy. (NON)*	1.66
FUNCTIONAL AREA II:	Safety and Comfort D. Patient Need for Movement (21 tasks)	
14.	Assist patient in preparation to crutch walking.	3.66
18.5	Assist patient in preparation for chest surgery.	3.83
18.5	Assist patient following amputations.	3.83
FUNCTIONAL AREA III:	Nutrition and Elimination A. Patient Need for Food and Fluids (18 tasks)	
10.	Regulate intravenous fluids.	4.16
13.	Start intravenous fluids.	4.83
FUNCTIONAL AREA III:	Nutrition and Elimination B. Patient Need for Elimination (6 tasks)	
FUNCTIONAL AREA III:	Nutrition and Elimination C. Patient Need for Oxygen Transport and Exchange (18 tasks)	
4.	Set up and regulate oxygen equipment.	3.5
12.	Suction patient's trachea.	4.33
16.	Start blood transfusion.	4.83

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

TASK BREAKDOWN FOR RN'S
CONT'D

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities A. Treatments and Procedures (31 tasks)

Frequency		Criticality
30.	Insert nasogastric catheters.	4.5

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities B. Application of Heat, Cold, Medicated Therapeutic Agents (20 tasks)

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities C. Medications (6 tasks)

5.	Give intravenous medications.	3.83

FUNCTIONAL AREA IV: Treatments, Procedures, Medications, and Diagnostic Activities D. Diagnostic Activities (21 tasks)

14.	Read cardiac monitors.	4.5
19.	Read fetal monitoring devices.	4.16
21.	Read skin tests.	3.16

FUNCTION AREA V: Observation and Communication A. Observation, Analysis, Interpretation (14 tasks)

FUNCTIONAL AREA V: Observation and Communication B. Oral and Written Communication (50 tasks)

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping A. Administration and Coordination (31 tasks)

1.	Assist personnel in giving nursing care.	3.5
5.	Prepare requisitions, credits, charges, e.g., equipment, supplies, treatments, procedures, diets. (NON)*	2.16

* NON indicates the National Technical Advisory Committee rates these tasks as non-nursing tasks or made no judgment. In practice, however, these tasks usually are performed by one or more of the nursing categories.

FUNCTIONAL AREA VI, Continued

Frequency		Criticality
7.	Check accuracy in administering and charting treatments and medications, procedures, orders, observations.	4.5
8.5	Take and record physician's verbal orders.	3.0
8.5	Transcribe physician's orders.	4.33
11.	Take inventory of drugs.	2.33
13.	Analyze nursing care requirements and report staffing needs.	3.5
16.	Assign patients to team members.	3.16
17.	Assign unit tasks to team members.	3.0
18.5	Supervise and evaluate performance of team members.	3.66
18.5	Assign patients and personnel to nursing teams.	3.0
20.	Supervise and evaluate performance of unit personnel.	3.33
21.	Assign unit tasks to teams.	2.83
23.	Inform personnel of new or changed policies and procedures.	3.33
24.	Orient new personnel to unit facilities, routines, and other personnel.	3.0
25.	Initiate service or referral for patient.	2.5
26.	Take inventory of unit's stationery supplies.	2.0
27.	Conduct nursing care conferences.	3.0
28.	Schedule activities, e.g., physical therapy.	2.33
30.	Supervise patient participation, e.g., in activities, dances, games.	2.5
31.	Write and/or assist in writing evaluations of performance of unit personnel.	2.83

FUNCTIONAL AREA VI: Administration, Coordination, Housekeeping
B. Housekeeping Functions (13 tasks)

SUMMARY TABLE, NUMBERS OF
TASKS PER NURSING CATEGORY

	ALL	RN/LVN	RN	TOTAL
FUNCTIONAL AREA I				
Diversional, Therapeutic Assistance Activities	8	0	1	9
FUNCTIONAL AREA II				
Safety and Comfort:				
A. Patient Protection	12	7	0	19
B. Personal Hygiene	22	1	0	23
C. Religious and Spiritual Care	5	0	1	6
D. Patient Need for Movement	15	3	3	21
FUNCTIONAL AREA III				
Nutrition and Elimination				
A. Patient Need for Food and Fluids	12	4	2	18
B. Patient Need for Elimination	5	1	0	6
C. Patient Need for Oxygen Transport and Exchange	3	12	3	18
FUNCTIONAL AREA IV				
Treatments, Procedures, Medications, Diagnostic Activities				
A. Treatments and Procedures	10	20	1	31
B. Application of Heat, Cold Medicated Therapeutic Agents	11	9	0	20
C. Medications	0	5	1	6
D. Diagnostic Activities	14	4	3	21
FUNCTIONAL AREA V				
Observation and Communication				
A. Observation, Analysis, Interpretation	11	3	0	14
B. Oral and Written Communication	36	14	0	50
FUNCTIONAL AREA VI				
Administration, Coordination, Housekeeping				
A. Administration and Coordination	7	3	21	31
B. Housekeeping Functions (All thought to be non-nursing.)	13	0	0	13
TOTALS	184	86	36	306

Note: NA does tasks in "All" column.
LVN does tasks in "All" and "RN/LVN" columns.
RN does tasks in all 3 columns.

45

APPENDIX II

MEMBERS OF NATIONAL TECHNICAL ADVISORY COMMITTEE
FOR THE NURSING OCCUPATIONS

J. P. Myles Black, MD
The Indian Hills Medical Center
Mission Hills, California

Mary Bruton, RN
Riverdale
New York

Terry Crowley
Adult Education Specialist
National Federation of Licensed
Practical nurses
New York, New York

Bernice Dixon, RN
Director
School of Nursing
Grady Memorial Hospital
Atlanta, Georgia

Phyllis Drennan
(Official representative of
National League for Nursing)
Coordinator
Associate Degree Nursing Program
Kirkwood Community College
Cedar Rapids, Iowa

Elizabeth J. Haglund
Regional Nursing Consultant for
the Division of Nursing
Bureau of Health Professions
Manpower Training
H.E.W. Region IX
San Francisco, California

William F. Hartnett, RN
Assistant Administrator
for Nursing Services
Riverside Methodist Hospital
Columbus, Ohio

Nannette Turner, LVN
(Official representative of
National Federation of
Licensed Practical Nurses)
Hollywood, California

Captain Ouida Upchurch, NC, USN
Special Assistant for Training
Research and Development
Department of the Navy
Bureau of Medicine and Surgery
Washington, DC

George Wells
Associate Director
Health Insurance Council
Chicago, Illinois

Gerry White, RN
Director
Allied Health Careers Institute
El Centro College of Dallas County
Junior College District
Dallas, Texas

Lucie S. Young, RN, PhD
(Official representative of
American Nurses' Association)
Chairman
Department of Nursing
California State College
Los Angeles, California

APPENDIX III

FORMAT FOR NURSING OCCUPATIONS
INSTRUCTIONAL UNITS

I. TARGET GROUP

II. PREREQUISITES (if appropriate)

III. DIRECTIONS TO STUDENTS (include Pre-Test if appropriate)

IV. GENERAL PERFORMANCE OBJECTIVES

V. SPECIFIC PERFORMANCE OBJECTIVES

VI. VOCABULARY

VII. INTRODUCTION (Motivation)

VIII. STEP-BY-STEP PROCEDURE

Start with Job Breakdowns,

then expand into final format.

Include Job Breakdowns with Instructional Units.

IX. ENRICHMENT ASSIGNMENTS

X. BIBLIOGRAPHY

XI. POST-TEST

APPENDIX IV

GENERAL CONSIDERATIONS FOR PLANNING
AN EFFECTIVE MANAGEMENT SYSTEM
FOR UTILIZATION OF LEVEL I
NURSING INSTRUCTIONAL UNITS

A. An effective management system depends on:

1. Adequate data information.
2. Student activity management.

B. Data supplied for four purposes:

1. To provide the instructors with information about individual student progress.
2. To provide the instructors with information about the total group progress.
3. To provide each student with information about his or her progress.
4. To provide progressive information about the course of instruction.

C. Student activities should be based on these principles:

1. Maximum time for one activity:

Short instruction periods are preferable to lengthy periods in order to hold student attention.

2. Varied activities:

Plan group as well as individual activities. These can include auto-instruction, lectures, lab work, counseling seminars, gripes, etc.

D. Essentials for maintaining data:

1. Student information

a. Individual Progress Form includes time spent to complete each module and student's comments (see Form I, page 40).
b. Group Progress Form (see Form II, page 41).

These charts are kept at the instructor's desk. The students write in their own completion time for each category in each unit or module.

c. Individual student folder contains:

1) All personal data.
2) All collected data such as individual progress forms, tests, quizzes, instructor's comments, etc.

This is an OPEN FILE, i.e., student can see it at any time.

2. Instructional content data

   Instructional Deficiency Report Form (see Form III, page 59).

   This is to be filled out by instructor when any problems arise relative to content or instruction, to provide a method for improving the instruction and instructional units.

E. Suggestions

1. Make a TIME TABLE covering all activities for a certain time segment.
2. Provide ENRICHMENT ACTIVITIES for quick students, VOLUNTARY, to include: ADVANCED WORK, reading, helping others, and special units.
3. Provide a RECYCLE for slow students; i.e., allow an extra day (week) for a module. Slow students can go back and redo it, or complete it.
4. Provide a REWARD or recognition for achievement, i.e. promotion to next unit.
5. SUBDIVIDE CURRICULUM into lecture, auto-instruction, and group interaction.
6. Develop FLOW CHART of procedures that students must do when entering program, activities, and learning schedule.
7. Give student a WEEK'S ACTIVITIES IN ADVANCE (or up to first stopping point).
8. Hold DAILY GROUP MEETINGS with students to plan each day's activities.
   a. Announce lectures.
   b. Each student should plan his own schedule for that day.
   c. Student's clinical experiences.
9. Bring students together at END OF DAY to discuss next day's plan, problems, etc.
10. Plan a TIME TABLE by Unit of Instruction, outlining the laboratory and audiovisual aids, the time needed for Performance Tests, and the expected instruction time required (see Form IV, page 60).

NOTE: Revisions of the planning system are continually in process. Suggestions presented here are just that--suggestions to be utilized if applicable to your setting.

A SUGGESTED SYSTEM FOR IMPLEMENTING INDIVIDUALIZED INSTRUCTION IN A CLASSROOM SETTING

Individualized instruction allows the teacher to work with smaller groups of students than in normal classroom teaching, so that there is a more efficient use of resources--equipment, space, and teachers. The number of groups that can be handled depends on the student to teacher ratio and limitations of equipment and space, but generally two groups can be handled comfortably.

A. SCHEDULING

Using the module analysis (Form IV), divide the syllabus into two parallel courses. A course could be one module long, one unit long, or several modules and units long. These are the limitations on matching courses:

1. No parallel units requiring same lab equipment (Column 3).

2. No parallel units requiring same teaching equipment (Column 4).

3. No parallel units requiring same supervision rating (Column 5).

It is possible to match one course requiring laboratory practice with one course which requires no practice, or both courses requiring practice. Little is gained by matching two entirely theoretical courses.

Provide enrichment or alternative assignments for the fast-progressing students to permit the slower students to catch up. Then at pre-planned intervals, bring the entire group together for group discussion to share their individual learning experiences, i.e., daily after clinical experience.

B. PROCEDURE

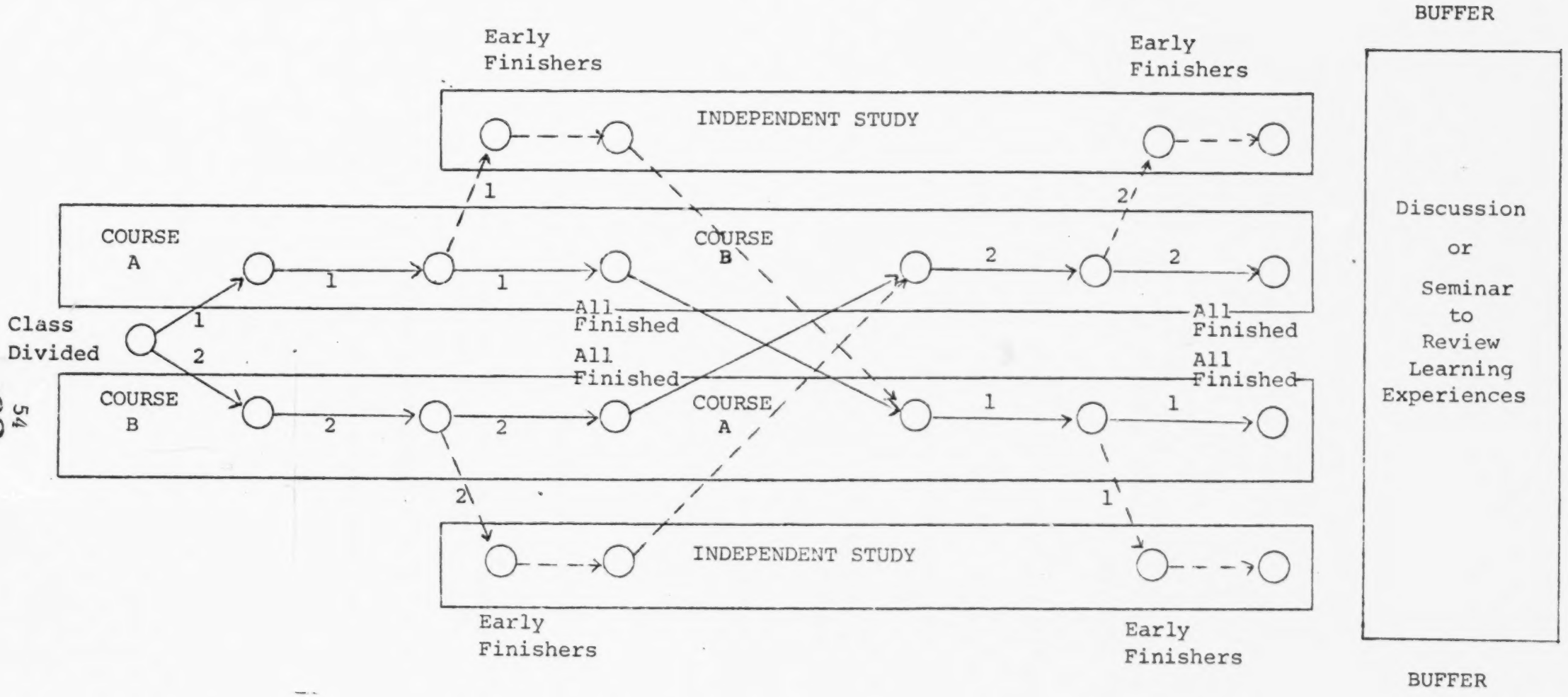
Assume two parallel courses, A and B. Split the class into two groups, 1 and 2.

Class 1 works on course A to buffer, then on B (Then REVIEW
Class 2 works on course B to buffer, then on A (both courses

"Slack" time = Independent Study

See model for an example of the system in operation (page 54).

MODEL TO SHOW OPERATION OF SYSTEM WITH
TWO PARALLEL COURSES, COURSE A AND COURSE B



GENERAL INSTRUCTIONS FOR THE FACULTY ON ADMINISTRATION OF PERFORMANCE TESTS

The directions for administration of each performance test should be followed as closely as possible so that a standard set of conditions is maintained for all occasions on which a particular test is given. The directions are designed to make the test conditions similar to those that the student will encounter on the job. Most of the tests, therefore, are arranged so as to require the student to make the appropriate preparations for performance, which may include locating and assembling the correct equipment, and to complete the necessary follow-up activities after performance of the basic task.

An itemized performance checklist has been provided for each performance test. The checklist items have been arranged as far as possible in the order in which observations of the activities probably would be made. Some items, however, will be dependent more on observation of the procedure as a whole rather than on observation at any one specific point in the procedure.

The observer should indicate his rating of the student's performance on each item by checking one of the four columns.

Col. 1 Yes: the student correctly performed as required by the item.

Col. 2 No: the student did not perform correctly, or failed to perform when he should have done so.

Col. 3 Not applicable: the activity was not performed because it was not appropriate in the circumstances.

Col. 4 Not observed: the observer was unable to observe the student's performance, or he was unable to judge whether or not the student's performance was correct.

The last item on the checklist requests the observer's judgment of the student's overall performance of the procedure as a whole. The definitions of the categories are:

a) Satisfactory: (Pass) the student has been properly trained so that he knows what to do and how to do it, and with further practice he should have no difficulty in attaining the required level of proficiency.

b) Unsatisfactory: (Fail) the student's overall performance is clearly deficient, and indicates that his training has not been adequate.

Space has been provided for comments if the observer wishes to qualify any of his ratings. If the observer judges that there was an error or a deficiency in some aspect of the student's performance that is not covered in the checklist, he should indicate in this space what it was.

The student should be allowed to continue through the test without guidance or correction from the observer. However, if the student is unable to continue, or if the observer considers that his performance might cause harm to the patient, the test may be stopped and the student given an overall rating of "unsatisfactory." The student will then return to the skill lab for further practice, or may be counselled and asked to drop out of the program because of consistently unsatisfactory performance.

GENERAL INSTRUCTIONS TO STUDENTS TAKING PERFORMANCE TESTS

To test your ability to apply the skills that you have learned, you will be asked to perform various tasks under conditions similar to those you would find on the job in a hospital. When you take these performance tests, remember that preparation and follow-up may be as necessary as "doing" the procedure. You should do all the things that you would do if you were performing the tasks on the job in a hospital, and you should use the techniques that you would employ if you were on the job in a hospital.

Listen to and/or read the test instructions carefully. Recall what it is you need for performance of the task. The items you will need will be available, but you may have to pick them out yourself. Recall what the proper techniques are. If the instructions say anything about the circumstances or the condition of the patient, consider how this may affect the way in which you perform the task. Make sure that you do not omit any of the necessary steps in performance of a task. Before you indicate to the instructor that you have finished, ask yourself if you have completed all the follow-up activities that normally would be necessary if you were actually performing the task on the job in a hospital.

Some of the tests will have time limits, because on the job you would be expected to practice economy of time as far as it is consistent with effective performance of your duties. The time limits are reasonable ones. They are not set with the intention of seeing how fast you can perform a task, but only to check your ability to perform it without taking an undue amount of time. Exceeding the time limit will lower your total score on a test, but it will not cause you to fail the test as long as your performance is satisfactory in other respects.

FORM I

(Students are responsible for entering data at completion of each unit.)

NAME:

TITLE OF UNIT OR MODULE	TIME BEGUN (Date & Hour)	TIME COMPLETED (Date & Hour)	TOTAL INSTRUCTION TIME (In Minutes)	POST-TEST COMPLETED (Instructor's Initials)	PERFORMANCE (Instructor's Initials)	STUDENT'S COMMENTS

(Students are assigned a number and must enter the number here. They must also enter the date at completion of activity.)

FORM II

TOTAL STUDENT TIME = INSTRUCTION + TESTING

TITLE OF UNIT OR MODULE	TIME	STUDENTS 1	2	3	4	5													AVERAGE TIME
	Reading Time																		
	Post-test Grade																		
	Performance Time																		
	Reading Time																		
	Post-test Grade																		
	Performance Time																		
	Reading Time																		
	Post-test Grade																		
	Performance Time																		
	Reading Time																		
	Post-test Grade																		
	Performance Time																		
	Reading Time																		
	Post-test Grade																		
	Performance Time																		

FORM III

INSTRUCTIONAL DEFICIENCY REPORT FORM

Title of Unit: _____

Title of Module: _____

Description of deficiency:

Action taken:

AHPP
rev. 1/71

_____
Instructor

FORM IV

MODULE OR UNIT ANALYSIS
(Worksheet for the Instructor)

1. Unit No.	2. Module or Unit Title	3. Laboratory Equipment Needed	4. Teaching Aids needed--e.g., A-V Equipment, Teacher Demo	5. Rating of Demands on Testing & Supervision (1-5 Scale)	6. Estimated Instruction Time Needed

APPENDIX V

FIELD-TESTING PROGRAMS FOR THE NURSING OCCUPATIONS
UCLA Allied Health Professions Projects

St. John's Hospital
1328 - 22nd Street
Santa Monica, California 90404
Phone: (213) 393-9531
Mrs. Marjorie Burns, Director, In-Servive Education
(Tested in nurse aide training classes.)

Santa Monica College
1815 Pearl Street
Santa Monica, California 90406
Phone: (213) 392-4911
Mrs. Margaret Bilynskyj, Chairman, Nursing Department
(Tested in community nurse aide program and in the beginning semester of the LVN program.)

Secondary Schools Pilot and Demonstration Project
UCLA, Division of Vocational Education
1003 Wilshire Boulevard
Santa Monica, California 90401
Phone: (213) 393-9281
Miss Diane Watson, Deputy Director
(Selected modules were utilized in the 10th and 11th grade curricula.)

West Valley Community College
14000 Fruitvale Avenue
Saratoga, California 95070
Phone: (408) 867-2200
Mrs. Eunice Hedrick, Coordinator for Nursing Education
(Tested in staff development program for nurse aides employed in local convalescent hospitals.)

Grossmont College
8800 Grossmont College Drive
El Cajon, California 92020
Phone: (714) 465-1700
Mary Wilson, Chairman, Nursing Department
(Tested as the first semester of the RN program.)

Center for Allied Health Careers
The Johns Hopkins Medical Institutions
624 North Broadway
Baltimore, Maryland 21205
Phone: (301) 955-3095
Dennis G. Carlson, M.D., Director
(Now testing in their family health curriculum.)

Charlotte Memorial Hospital
P.O. Box 2554
Charlotte, North Carolina 28201
Phone: (704) 377-4461
Eugene Smith, Director for Nursing Services
(Now testing as a staff development program for currently employed nursing assistants.)

Central Piedmont Community College
P.O. Box 4009
Charlotte, North Carolina 28204
Phone: (704) 372-2590
Jessie Kiser, Director, School of Nursing
(Now testing in a nursing assistants' program and in the beginning semester of the LPN program.)

Cabrillo College
6500 Soquel Drive
Aptos, California 95003
Madelyn Roberts, Director of Vocational Nursing
(Now testing in beginning vocational nursing course in the LVN program.)

St. Alexius Hospital
800 West Biesterfield Road
Elk Grove Village, Illinois 60007
Phone: (312) 437-5500
Dana Achor, Coordinator for Staff Development
(Testing in nurse's aide training class.)

Memorial Hospital of Southern California
3828 Hughes Avenue
Culver City, California 90230
Phone: (213) 839-4311
Gwen Tufts, Director of Nursing
(Testing in nurse's aide training class.)

Grady Memorial Hospital
80 Butler Street, NE
Atlanta, Georgia 30302
Phone: (404) 659-1212
Bernice Dixon, Director, School of Nursing
(Testing in the diploma RN program.)

San Joaquin Delta College
3301 Kensington Way
Stockton, California 95204
Phone: (209) 466-2631
Betty J. Pinol, Director of Vocational Nursing
(Testing in beginning semester of LVN program.)

Sierra College
5000 Rocklin Road
Rocklin, California 95644
Phone: (916) 624-3333
Marjorie L. Sanchez, Director of Vocational Nursing
(Testing in beginning semester of LVN program.)

Eastern Arizona College
3626 North 21st Avenue
Phoenix, Arizona 85015
Alice K. Gilliland, MSN, Director of Nursing Program
(Testing in beginning semester of RN program.)

Dalton Vocational School of Practical Nursing
P. O. Box 1168
Dalton, Georgia 30720
Phone: (404) 278-2105
Grace Ward, Director
(Testing i.. LPN program.)

Coosa Valley Vocational Technical School
112 Hemlock Avenue
Rome, Georgia
Fannie R. Pooley, RN, Supervising Instructor
(Testing in LVN program.)

Phoenix College
1202 North Thomas Road
Phoenix, Arizona 85013
Lorrayne Clifton, Chairman, Nursing Department
(Testing in beginning semester of RN program.)

AHPP
3/72

NURSING OCCUPATIONS
UCLA ALLIED HEALTH PROFESSIONS PROJECT

TABLE OF UNITS ENCOMPASSED IN STAGE I

1. The Health Worker and the Law

2. Introduction to Ethics in the Healing Arts

3. Environment and the Patient

   Temperature, humidity, ventilation, light, noise, cleanliness, and safety

4. Guidelines for Performance of Nursing Skills

   Planning, safety, purpose of action; economy of time, effort, expense; and evaluation

5. Body Alignment, Balance and Movement for Health Workers, Part I

   Principles of balance/alignment, gravity, leverage, and friction as related to specific health care activities

6. Body Alignment, Balance and Movement for Health Workers, Part II

   Reach, push, pull, carry, and lift as related to specific health care activities

7. Introduction to Charting

8. Handwashing Technique for Medical Asepsis

9. Making Hospital Beds

   Unoccupied, occupied, surgical, manual, and electric

10. Assisting the Patient to Dress and Undress

11. Baths

    Backrub, bed-bath, shower, tub, sitz, special (medicated, etc.)

12. Care of the Hair

    Daily brushing/combing, braiding, and shampoo

13. Special Skin Care

    Decubitus, skin care for traction patients, for ileostomy and colostomy patients; care of toenails and fingernails

14. Patient Movements and Ambulation

    Range of motion (passive exercise, dangle legs, walking, and prevention of falls)

15. Mechanical Aids for Ambulation and Movement

    Wheelchair, crutches, braces, walker, and cane

16. Positioning the Bed Patient

    Positions: supine, prone, lateral, Fowler's, semi-Fowler's, Sims', and Trendelenburg

    Supportive Aids: pillow, handrail, footboard, sandbags, and trochanter roll

    Protective Aids: decubinex pad, foam rubber pads, flotation mattress, and rubber rings

17. Assist with Nutrition

    Types of diets; assist in feeding adults, children, and infants; preparation before meal, and care after meal

18. Fluid Intake and Output

19. Observing Intravenous Therapy

20. Assisting with Spiritual Care

21. Urine Elimination

    Bedpan, urinal, female urinal, fracture pan; review of organs of urinary system, characteristics of urine; collecting urine specimens; and diabetic urine testing

22. Bowel Elimination

    Review of intestinal tract; characteristics of feces, bowel training, and rectal suppositories; collecting stool specimens; enemas - cleansing and retention, Harris flush; use of rectal tube; colostomy irrigation, and ileostomy irrigation

23. Collection of Sputum and Emesis Specimens

24. Perineal Care

25. Care of Patient with Gastrointestinal Tubes

    Levin, Cantor, Miller-Abbott, Harris, Ewald; gastrostomy, enterostomy, proctoclysis feedings; G.I. drainage tubes without suction - Penrose, cigarette, T-tube, catheters; G.I. drainage tubes with suction - portable electric, wall suction, Gomco thermotic pump, water displacement (Wangensteen)

26. The Cardinal Signs

    Temperature, pulse, respiration, and blood pressure

27. Admission, Transfer and Discharge

    Orientation to room and orientation to intercom

28. Postmortem Care

29. Oxygen Therapy

    Mask, cannula, tent, catheter, humidifier, and smoking regulations

30. Cardiopulmonary Resuscitation

31. Assist with Procedures: Heat and Cold Treatments, Turning Frames, and Restraints

32. Application of Bandages and Binders

33. Preoperative Care of a Patient

34. Preparation of Consents, Releases and Incidents

35. Postoperative Care of a Patient

36. Isolation Technique: Direct, Reverse and Terminal Disinfection

NOTE: The exact sequencing is left to the discretion of the individual faculties.

The Stage I Instructional Units will be published by W. B. Saunders Company in April 1972 under the title Nursing Skills for Allied Health Services.

TABLE OF UNITS ENCOMPASSED IN STAGE II

*1. Aseptic Technique (scrub; open sterile packages; handle sterile equipment; apply sterile dressings, gowns, gloves; and pour sterile solutions)

*2. Irrigations and Instillations of Body Cavities (eye, nose, throat, stomach, and wound)

*3. Application and Administration of Hot/Cold Compresses, Packs, and Soaks

*4. Application of Tourniquets (rotating, for Perthes and Trendelenburg circulatory tests)

*5. Care of Tracheostomy Patient (suctioning, changing cannula, and dressing)

*6. Urinary Catheterization (male and female)

*7. Pharyngeal Suctioning (oral, nasal, and tracheal)

*8. Assist with Treatments and Examinations (physical, rectal, vaginal, proctoscopic, and sigmoidoscopic)

*9. Insertion of Nasogastric and Gavage Tubes

10. Counting Fetal Heart Tones and Utilization of Fetal Monitoring Devices

11. Obtain Cultures (nose, throat, vaginal, and wound)

*12. Set Up, Regulate, and Administer Oxygen and Positive Pressure Therapy

13. Give and Read Skin Tests (Tine, Tetanus, and Mantoux)

14. Read Cardiac Monitors

*15. Somatic Therapies (electric shock and insulin shock)

*16. Preparation and Administration of Medications (oral, subq, IM, IV, rectal, inhalation, and topical)

17. Basic Assessment System

18. Assist with Individual and Group Therapy

---

*In process.

APPENDIX VII

SAMPLE TEACHER'S GUIDE

GENERAL INSTRUCTIONS TO TEACHERS

1. Review the unit carefully yourself for content.

2. Assemble required supplies, equipment and aids; arrange for adequate classroom space before classtime.

3. Introduce the unit.

   A. Give a demonstration yourself, or

   B. Show an appropriate film which meets the objectives set forth in the unit.

4. Permit the student to read through the unit material (remain available for questions).

5. Give the written post-test when the lesson has been read.

6. Let the student correct his own paper and record the score on the master copy, Form III. (The grade is used to find out how much has been learned. The student must pass with at least 80% correct or reread the unit and take another post-test. The grade is recorded temporarily as a guide for you; it in no way should indicate failure to the student.)

7. After successfully completing the written post-test, the student should practice in the laboratory with a partner (if appropriate) until he or she feels ready to take the PERFORMANCE TEST. Be available on the spot for assistance and clarification of procedure during the practice session. This experience is most valuable for both the student and you; you will do a great deal of individual counseling at this time, and may find this to be unusually strenuous because the students will constantly be asking you questions. This is also an opportunity which will provide growth for the student and for you to create interesting and innovative learning situations.

   i.e., Utilize tape recorders during the practice sessions, having the student respond to the "patient." At the completion of the laboratory session, you can listen to the tape recording with the student partners and help clarify errors in their communication skills.

8. Give the PERFORMANCE TEST in private, so that the student will not be influenced by others, or influence those who follow. This is crucial if you want an unbiased testing situation. Use your performance checklist. Be sure that all the key points are covered correctly and in sequence (if applicable).

Use the performance checklists at one- to two-week intervals to check for retention and continuing acceptable standards of performance.

9. When the student successfully completes the PERFORMANCE TEST, give him or her one of several options:

   A. Begin the next unit immediately.

   B. Utilize the free time to do what he or she wants to do.

   C. Pursue some of the enrichment assignments at the library.

   D. Assist slower students in the learning laboratory. (Make this a positive experience and not a punishment for finishing the unit early!)

   E. Request a patient assignment on the nursing unit in which he or she can practice the procedure under <u>supervision</u>.

   F. Other constructive activities.

      NOTE: If the student does not successfully complete the performance test, he or she should return to the laboratory to practice until this test can be successfully passed, which is the key to our program (PERFORMANCE, not grades or time spent in class).

10. Prepare Deficiency Report Form at completion of unit. It is best to do this immediately after finishing the unit; otherwise problems that arose and your impromptu resolutions quickly fade from mind as you progress through the successive units.

    A. Note any errors found.

    B. List additional source materials or alternatives to the bibliography. Please give complete information: author, title, place and name of publisher, year, edition, page numbers.

    C. List additional or alternative films (or audiovisuals) used as well as samples of practice work assignments. Give complete information: title, company, content, to whom materials would apply (NA/LVN/RN or other).

    D. Make recommendations and comments on student or teacher problems connected with the unit and your method of overcoming them.

    E. Return form to AHPP.

DIAGNOSTIC TEST - A

Handwashing Technique for Medical Asepsis

Part I Directions: True/False. If the statement is true, circle the letter T at the left of the statement; if the statement is false, circle the letter F.

T F 1. You can spread microorganisms to another person without touching him.

T F 2. Initially the hands should be washed after washing the forearms.

T F 3. Human fingers are the most common means of spreading microorganisms.

T F 4. If the hands must be washed frequently, it is best to use cold water to prevent chapping of the skin.

T F 5. Hands should be held level with the waist during the handwashing procedure.

T F 6. Your hands and body should not touch the sink at any time during the handwashing procedure.

T F 7. The palms of the hands should be washed before washing the hands.

T F 8. An infected person can spread his infection to animals, food, clothing, and other objects as well as to people.

T F 9. When washing the hands, water should not be allowed to flow down from the forearms over the palms.

T F 10. Bacteria that enter the body through breaks in the skin are more dangerous than bacteria that enter through the nose and mouth.

Part II Directions: Short-Answer/Completion. Please write your response in the space provided.

1. List four circumstances which necessitate handwashing.

_____ _____

_____ _____

2. Please write a brief statement explaining why ornate rings should not be worn by health care workers.

_____

_____

_____

ANNOTATED ANSWER SHEET

FORM A

PART I

1. T p. 60
2. T p. 66
3. T p. 60
4. F p. 64
5. T p. 64
6. T p. 63
7. T p. 65
8. T p. 61
9. F p. 64
10. T p. 61

PART II

1. (a) Prior to handling food or food receptacles

   (b) Before and after using the bathroom

   (c) Before and after any procedure that involves direct or indirect contact with a patient

   (d) After contact with wastes or contaminated materials. p. 62

2. Bacteria may become lodged in the set or stones of jewelry. p. 62

PERFORMANCE CHECKLIST

Student: _____

Date: _____

PASS____

FAIL____

HANDWASHING TECHNIQUE FOR MEDICAL ASEPSIS

	Satisfactory	Unsatisfactory	Not Observed	Not Applicable
1. Stands away from sink so as not to have clothing in contact with sink.				
2. Turns water on; adjusts to warm temperature. Keeps water running during entire procedure.				
3. Wets hands.				
4. Applies soap thoroughly; gets under nails and between fingers.				
5. Washes palms and backs of hands with strong frictional motion (10 rotary movements for at least 20 seconds).				
6. Washes fingers and the spaces between them, interlacing the fingers, rubbing them up and down for 10 seconds (10 strokes).				
7. Washes wrists and above wrists three to four inches, using rotary action (10-15 times).				
8. Repeats steps 4-7 (completion of 2-minute scrub, 120 strokes).				
9. Pays special attention to problem areas.				
10. Rinses well; runs water from wrists to fingers (final rinse).				
11. Dries thoroughly with paper towel from wrists to fingertips.				
12. Turns off water with paper towel and discards in receptacle.				
13. Uses hand-lotion if desired.				

Sample Instructional Unit

HANDWASHING TECHNIQUE FOR MEDICAL ASEPSIS

OUTLINE AND INSTRUCTIONS FOR TEACHERS USE OF MATERIALS

This package includes:

1. Instructional Unit: Handwashing Technique for Medical Asepsis.
2. Test Pool questions with annotated answers and scoring key.
3. Performance Checklist.
4. Instructional Unit Deficiency Report Form (to be returned to AHPP).
5. Student's Deficiency Report Form (to be used for counseling only).
6. Audiovisual aids suggested for this unit:

Films

Hospital Sepsis. 30 minutes. ANA and NLN Film Library. Rental fee $5.00. (Also available through some local Public Health Departments.)

Body Defenses Against Disease. 10 minutes. Pennsylvania State University. Rental fee $2.25.

Skin Antiseptics. Iodine Educational Bureau, New York. Transportation charge only.

BN-110 Medical Asepsis. Trainex Corporation, Garden Grove, California. Charge not stated.

Handwashing Procedures. 15 minutes. Health Employees Learning Programs, Ro-com Division of Hoffman-La Roche, Inc., Nutley, New Jersey 07110.

7. List of references

Bibliography

Benson, Margaret, "Handwashing--An Important Part of Medical Asepsis," American Journal of Nursing, Vol. 59, pp. 1136-39; September 1957.

Berry, Cornelia and Mary Louise Kohn, Introduction to Operating-Room Technique. New York: McGraw-Hill Book Company, 1966, p. 38.

Donovan, Joan, Edith Belsjoe, and Daniel Dillon, The Nurse Aide. New York: McGraw-Hill Book Company, 1968, pp. 37-38.

Harmer, Bertha and Virginia Henderson, The Principles and Practice of Nursing. New York: The MacMillan Company.

Johnston, Dorothy F., Total Patient Care. St. Louis: The C. V. Mosby Company, p. 59.

Knoedler, Evelyn L., The Nurse Assistant. New York: Delmar Publishers, Inc., 1968, p. 31.

Bibliography (Con'd)

Rasmussen, Sandra, Foundations of Practical and Vocational Nursing. New York: The MacMillan Company, 1967, p. 71.

8. Suggested supplementary materials for this unit: None.
9. Target Group: All Health Workers.
10. Prerequisites for this unit: None.

HANDWASHING TECHNIQUE FOR MEDICAL ASEPSIS

I. GENERAL PERFORMANCE OBJECTIVE

Employ the correct technique for washing the hands at all appropriate times, as a means of maintaining standards of cleanliness that will minimize the risk of contracting or transmitting infections.

II. SPECIFIC PERFORMANCE OBJECTIVES

The student will be able to:

1. Name the routes by which bacteria can be transmitted, recognize the conditions that are favorable and unfavorable to their growth, and take appropriate handwashing precautions against bacterial contamination.

2. State at least five circumstances that necessitate washing the hands, as a result of direct or indirect contact with contaminated materials.

3. Wash the hands without any contamination of hands, body, or clothing.

4. Adjust water to the proper warm temperature for washing the hands.

5. Apply soap and water in the proper quantities for washing the hands, fingers, wrists, and forearms in the proper sequence.

6. Use the proper rotary and frictional movements to apply firm, even pressure to each area as it is washed.

7. Rinse hands and forearms in the proper manner.

8. Clean fingernails and skin folds properly.

9. Dry hands carefully to prevent chapping.

10. Explain and demonstrate correct handwashing technique to others.

III. VOCABULARY

It is essential to the understanding of this lesson to learn the definitions of the following words.

abrasion-----an injury resulting from scraping away a portion of skin or mucous membrane.

antiseptic-----preventing or arresting the growth or action of microorganisms.

asepsis-----a condition free from germs, sterile.

bacteria-----one-celled microorganisms, some of which cause disease.

contaminate-----to render unclean or unsterile.

debris-----rubbish or ruin.

friction-----rubbing one thing against another.

genito-urinary-----pertaining to the organs of reproduction and excretion.

microorganism-----minute (small) living body not visible to the naked eye.

palm-----concave area of the hand between base of fingers and wrist.

rotate-----to turn.

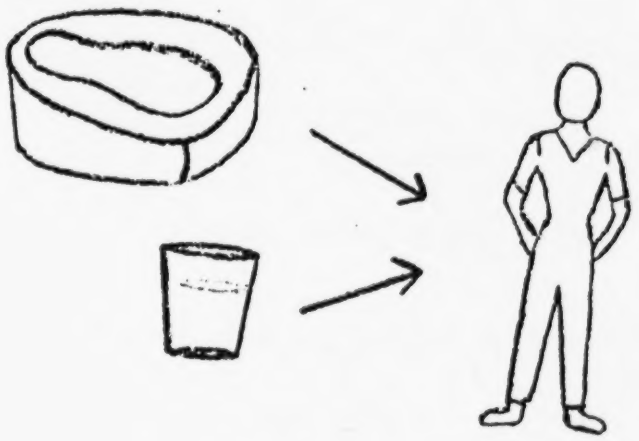
IV. INTRODUCTION

Hands carry germs. Germs are called microorganisms. Microorganisms are very small objects, much too small to be seen with the naked eye. They are seen through an instrument called the microscope. Bacteria are one-celled microorganisms, some of which cause disease. Disease-producting bacteria are referred to as pathogenic. Dirty or contaminated articles, or surfaces, provide an optimum environment in which the pathogens can grow and multiply. Infections are caused by disease-producting microorganisms (pathogens) which invade the tissues of the body and set up a chemical reaction which causes the tissues to react. Some common pathogenic organisms you will be hearing about are: streptococcus or the "strep infection" and the staphylococcus or "staph infection."

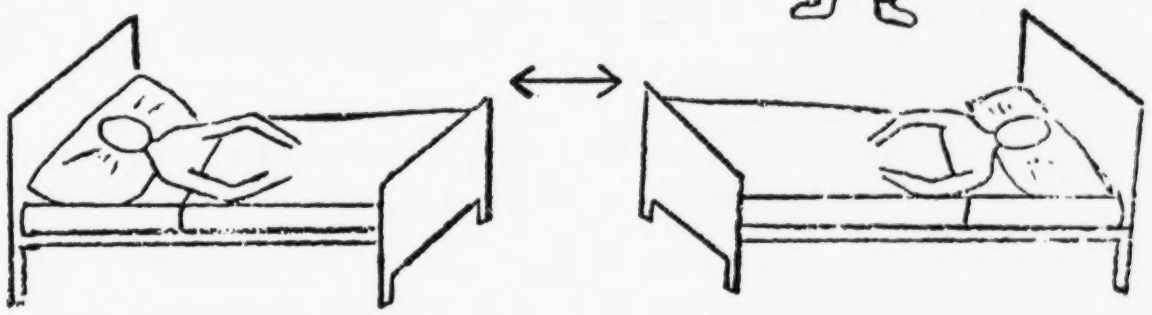
Microorganisms which do not produce disease are referred to as non-pathogenic. Some of the common non-pathogenic organisms are: escherichia coli (e.coli) and proteus vulgaris. They are both normal, harmless residents of the intestinal tract. However, if these organisms get into another part of the body (such as the bladder or an open wound), they may cause an infection.

The five most common methods of disease transmission are the five fingers! The fingers on your hands carry the germs (or microorganisms) to the mouth, nose, eyes, and to other people. Microorganisms can be spread in several ways:

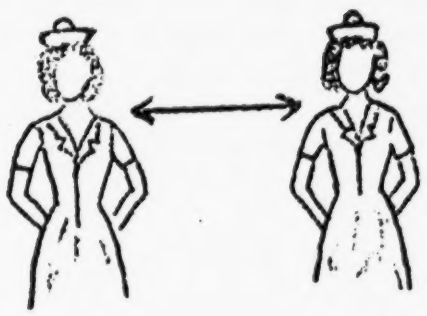
Hospital Equipment to Patient or Worker:



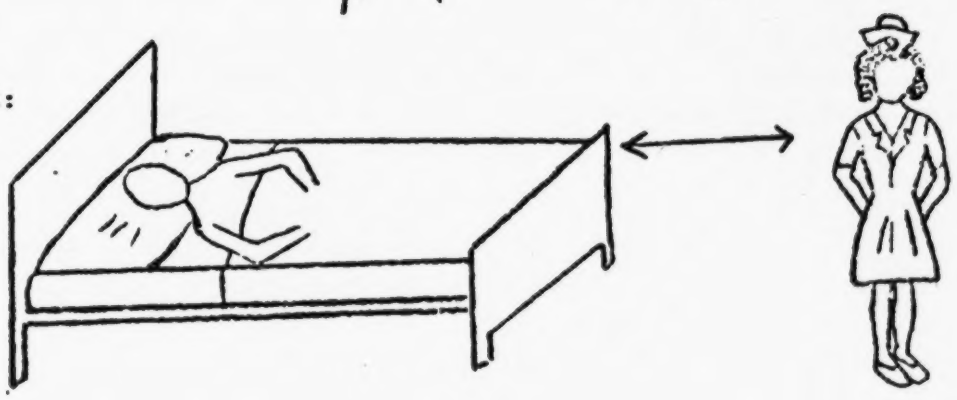
Patient to Patient:



Worker to Worker:



Worker to Patient:



Microorganisms can enter the body through:

1. Mouth and Nose

2. Genito-urinary Tract

3. Breaks in the Skin

Breaks in the skin are frequently the means by which microorganisms enter the body. Germs are everywhere: in the air, in the soil, in the water, on plants, on food and animal life, as well as in or on human beings! Therefore, if the skin is broken, the first line of defense is broken, and germs may then enter the body.

Because germs (bacteria, microorganisms) are living organisms, they need the following environmental conditions to help them live and grow--just as you do. They are:

MOISTURE: Needed in the process of nutrition to break down solid food particles to permit their utilization as nutrients for the body cells. Moisture also enables waste materials to be expelled from the body.

FOOD: Needed to assist in the growth process of the organism.

OXYGEN: Most living organisms need an oxygen supply to live, but there are some organisms which do not; they are called anaerobic (without oxygen). Some common anaerobic pathogens you may have heard about are tetanus and gas gangrene organisms.

TEMPERATURE: The normal body temperature (98.6°F) is the best temperature for most bacteria to grow and multiply. High temperatures (over 170°F) kill most bacteria. Therefore, heat in various forms is often used to disinfect objects: to kill the germs, in other words. Below-freezing temperatures (under 32°F) inhibit the growth of bacteria, although many bacteria will not be killed in this manner.

DARKNESS: Most bacteria die when exposed to light; they multiply rapidly in darkness. This is why airing and sunning of articles from a patient's home or room are highly effective ways of killing germs.

One of the most critical tasks you will encounter in the health field is providing an optimum environment for both your patient and you. A clean, dry, light, and airy atmosphere goes a long way toward preventing the growth of germs or killing those which already exist.

One of the simplest techniques we have in the health field to prevent the spread of disease and germs is the Handwashing Technique. It is a safety skill not only for you personally, but for your patient, co-workers, visitors, and your family. It assists in protecting you and others from the spread of infections and disease. You will wash your hands before and after doing any procedures that involve direct or indirect contact with a patient, after contact with any wastes or contaminated materials, before handling any food or food receptacles, and at any other time your hands could become soiled.

SPECIAL INSTRUCTIONS

Jewelry may not be worn. The only exception is a plain wedding band. Bacteria become lodged in the sets or stones of the ring. Fingernails should be clean and well-trimmed. By complying with these two requirements, you will decrease the opportunity for bacteria to accumulate under the fingernails, which in turn can be spread to other persons. Proper hand care prevents hangnails and skin abrasions from occurring. As you know, these are breaks in the skin and therefore they enable germs to enter your body and also harbor germs.

Special Equipment

1. Liquid soap.

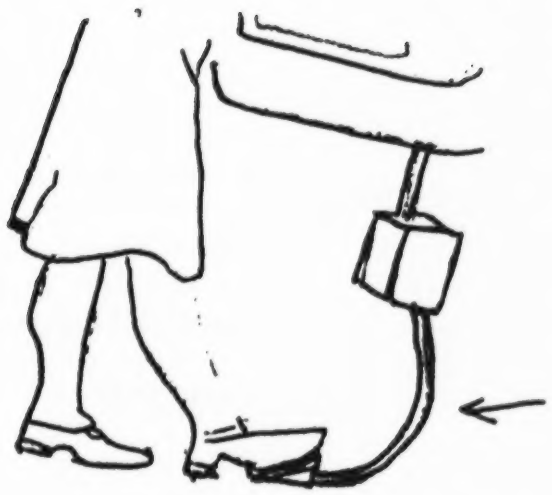
   Soap combines with foreign matter on the skin and lowers the surface tension (clinging effect) of grease and dirt, thus permitting them to be easily removed from the skin surfaces. When an investigation was made of soap dishes and bar soaps in use, many bacteria were found growing on them. Thus the bar of soap itself can become a germ-carrier! After use, be sure to rinse the soap before returning it to the soap dish. This minimizes the germ accumulation for the next person. In health agencies, bacteria-inhibiting (bacteriostatic) liquid soaps are preferred, such as Phisohex. Its main ingredient is hexachlorophene*, a bacteriostatic agent that has a cumulative effect, i.e., the longer the film of hexachlorophene remains on the skin, and the more frequent the applications through repeated handwashings, the fewer bacteria there will be on the skin. Hexachlorophene is usually non-irritating to the skin. Others may also be used.

2. Running water.

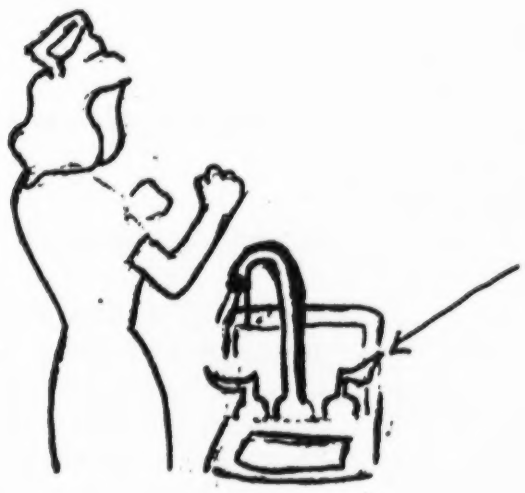
   Running water carries away dirt and debris. If a water faucet is not available, secure a pitcher of clean water and ask someone to pour the water over your hands and forearms.

* An article in the April 3, 1971, edition of the Los Angeles TIMES reported that hexachlorophene was found to be toxic to the central nervous system in laboratory animals.

A sink with a <u>foot pedal</u> is preferable because it enables you to turn on the water and regulate the flow without contaminating your hands.



A sink with elbow levers is used frequently in hospitals, particularly in the operating room area. This type of faucet also prevents contaminating your hands.



3. Adjust temperature of the water.

   Warm water makes better suds than cold water and is preferred to hot water because it removes less protective oil from the skin. Extremely hot or cold water tends to dry the skin. With repeated washing, your skin may become chapped or cracked, thus providing the prime site for germs to enter the body.

4. Wet hands with water.

   Hold hands down toward the sink, lower than the elbows. Water will then drain from the wrists to the fingertips and carry the bacteria away. Be sure not to contaminate your hands by touching the inside of the sink or the faucets.

3. Paper towels.

   Paper towels are best because they are disposable. If only cloth towels are available, they should be used only once and discarded immediately into the linen hamper.

4. Container for soiled towels.

   Wastebaskets should be placed beside each lavatory for paper towel disposal. Linen hampers should be available in each wash area where linen towels are used.

PROCEDURE FOR TWO-MINUTE HANDWASH FOR MEDICAL ASEPSIS

1. Approach the sink.

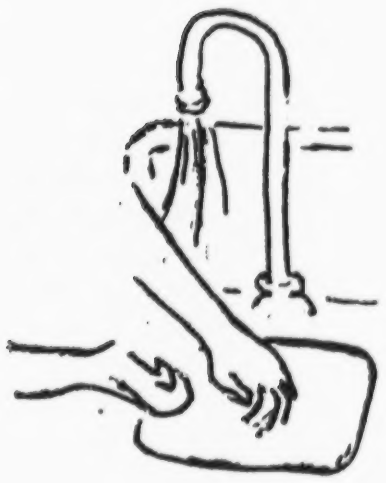
   Stand in a comfortable position, leaning slightly toward the sink. Maintain good body alignment. Prevent clothes from touching the sink; usually there are many bacteria in and around the sink area. You must therefore avoid contaminating your uniform by contact with the sink. Prevent splashing of water and getting your uniform wet. Remember that bacteria thrive in moist surroundings; they grow and multiply rapidly.

2. Turn on water.

   The water must run continuously throughout the handwashing procedure. You may find one of three main types of faucets at your agency: hand-operated--use a paper towel to protect your hands when turning on the faucet, then discard the paper towel promptly.

7. Rinse well.

   Running water should be directed so that it flows from the wrists down to the fingers, thus carrying the suds and soil down the drain.



8. Moisten wrists and forearms again.

   Use the right amount of liquid soap, about one teaspoon. Since the wrists and forearms also may come in contact with bacteria, they should also be washed. Wash one wrist and forearm for 10 to 15 seconds using firm rotary and friction action. Then wash the other wrist and forearm in the same manner, moving from the wrist up toward the elbow. Total strokes for both arms = 30.

9. Rinse arms and hands.

   Again, remember to drain the water from the forearm to your fingertips.

10. Repeat handwashing. (60 strokes)

    Use procedure in Steps #5 through 9. All remaining bacteria and soil should now be gone.

11. Inspect knuckles.

    The knuckles frequently harbor an excess of bacteria and germs in the folds of the skin and thus may need additional attention. If so, cleanse with soap using firm friction and rotary action.

12. Clean fingernails.

    An orange stick or a curved end of a flat toothpick will remove the dirt and help prevent breaks in the skin; discard it after use.

NOTE: Fingernails should be cleaned at the beginning of your tour of duty and as needed during the shift. Normally, it will not be necessary to clean them each time you wash your hands throughout the day.

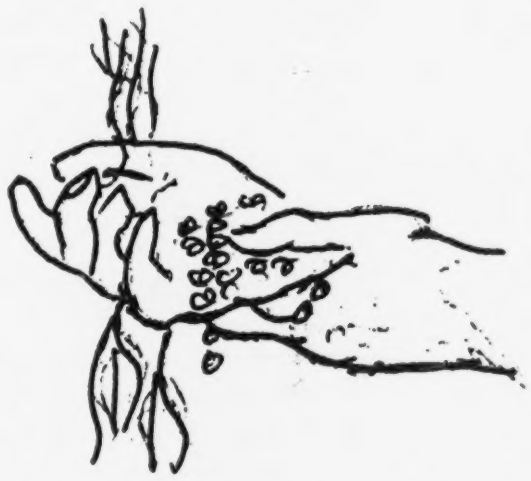
5. Apply soap (or detergent).

Use approximately 2 to 4 cc (one teaspoon) of a liquid soap, which has fewer germs than bar soap and combines more easily with dirt, thus making it a more effective cleaning agent. Bar soap may retain bacteria; when used, rinse it before returning it to the soap dish, which should be the type that permits the bar of soap to dry on all sides before reuse. (Remember that dry surfaces help to stop the growth of bacteria.)

NOTE: If you accidentally drop the bar of soap on the floor while washing your hands, you must pick it up, rinse it thoroughly, and then begin at Step #1 of the handwashing procedure!

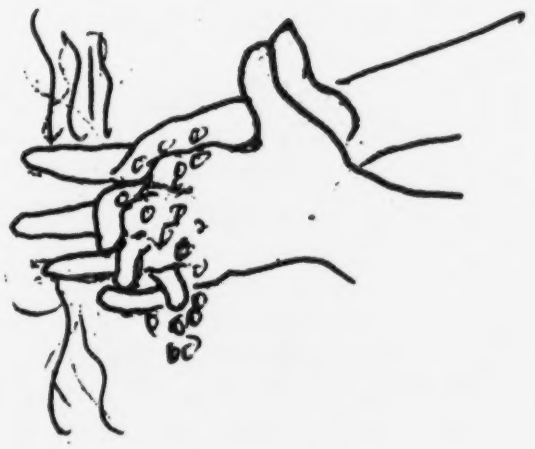
6. Wash hands.

This step will take about 20 to 25 seconds. Use <u>friction</u> (strong rubbing movements) and <u>rotary</u> (circular) motions. Friction and rotary action dislodge bacteria from your hands.



<u>Wash the palm and back of each hand</u> with 10 rotary motions. Be sure to apply a firm, even pressure to maintain effective friction to dislodge the soil.

<u>Wash fingers</u> with 10 rotary motions. The fingers and thumbs should be interlaced. Rotation back and forth in this position cleans the inter-digital spaces between the fingers quickly and efficiently.



Total of 30 seconds:

10 seconds for palms
10 seconds for back of hand
10 seconds for fingers

13. Dry hands well.

    Because you wash your hands many times throughout your tour of duty, it is necessary to dry them very gently and carefully to avoid chapping or drying the skin. Chapped skin frequently breaks open, thus permitting bacteria to enter your system.

14. Turn off running water.

    Use paper towel to turn off hand faucet. Discard towel in the wastebasket.

15. Apply lotion.

    Apply lotion as desired to keep your skin soft.

16. Return used equipment.

    Used equipment should be returned to proper storage area, or returned to appropriate area for reprocessing. Wipe area surrounding sink with a paper towel. Remember that germs thrive on moist surfaces! Discard paper towel in wastebasket. A clean, dry environment promotes health.

NOTE: Recommended handwashing routine time schedule:

2 minutes (120 strokes) at beginning of each tour of duty.
30 seconds (30 strokes) between visits with non-grossly contaminated patients.
60 seconds (60 strokes) after caring for grossly contaminated patients.

ENRICHMENT

The Nature of Bacteria and Microorganisms

There are many kinds of microorganisms; bacteria represent one type.

You have learned that handwashing is a way of preventing spread of bacteria and microorganisms, to protect the patient, others, and yourself.

It was stated that bacteria enter the body through the mouth, nose, and the genito-urinary tract. Each of these tracts has secretions which serve as barriers to bacteria. Thread-like cilia (hairs) and the mucous membrane of the nose are so effective in removing dust and bacteria that the lungs are kept relatively free of these microorganisms. There is an acid reaction to urine and vaginal secretions which prevents growth of most bacteria in the genito-urinary tract. Digestive juices kill some of the bacteria that enter through the mouth, and the mucous membranes of the intestines are effective in keeping bacteria from invading the tissues.

One kind of bacteria that is generally found on the skin is the staphylococcus (plural, staphylococci); it is commonly called "staph." This is disease producing and all health facilities are plagued by it. When this "staph" gets into the body (through a break in the skin), it may cause a local infection and/or soreness with pus. It may affect the entire body once it enters the blood stream, and those afflicted with it feel very ill. Staphylococcus causes such ailments as a boil, a stye on the eyelid, infection in a surgical wound, infection around the fingernail, and food poisoning.

Antibiotics are used to fight this type of infection, but staphylococcus is very resistant to most antibiotics and often it makes the patient very ill.

Staphylococci are present on the skin most of the time, even when you are in a state of good health. This is one reason why handwashing is so important. Like all bacteria, "staph" thrives in moist dark places; sunlight is its enemy because it dries and dies when exposed to direct sunlight for a given time. Remember to wash your hands well and often and to dry them thoroughly.

DIAGNOSTIC TEST - A

Handwashing Technique for Medical Asepsis

Part I Directions: True/False. If the statement is true, circle the letter T at the left of the statement; if the statement is false, circle the letter F.

T F 1. You can spread microorganisms to another person without touching him.

T F 2. Initially the hands should be washed after washing the forearms.

T F 3. Human fingers are the most common means of spreading microorganisms.

T F 4. If the hands must be washed frequently, it is best to use cold water to prevent chapping of the skin.

T F 5. Hands should be held level with the waist during the handwashing procedure.

T F 6. Your hands and body should not touch the sink at any time during the handwashing procedure.

T F 7. The palms of the hands should be washed before washing the hands.

T F 8. An infected person can spread his infection to animals, food, clothing, and other objects as well as to people.

T F 9. When washing the hands, water should not be allowed to flow down from the forearms over the palms.

T F 10. Bacteria that enter the body through breaks in the skin are more dangerous than bacteria that enter through the nose and mouth.

Part II Directions: Short-Answer/Completion. Please write your response in the space provided.

1. List four circumstances which necessitate handwashing.

_____ _____

_____ _____

2. Please write a brief statement explaining why ornate rings should not be worn by health care workers.

_____

_____

_____

ANNOTATED ANSWER SHEET

FORM A

PART I

1. T p. 60
2. F p. 66
3. T p. 60
4. F p. 64
5. F p. 64
6. T p. 63
7. T p. 65
8. T p. 61
9. T p. 64
10. F p. 61

PART II

1. (a) Prior to handling food or food receptacles.

   (b) Before and after using the bathroom.

   (c) Before and after any procedure that involves direct or indirect contact with a patient.

   (d) After contact with wastes or contaminated materials. p. 62

2. Bacteria may become lodged in the set or stones of jewelry. p. 62

DIAGNOSTIC TEST - B

Handwashing Technique for Medical Asepsis

Part I Directions: True/False. If the statement is true, circle the letter T at the left of the statement; if the statement is false, circle the letter F.

T F 1. Microorganisms must have food, moisture, and air to survive.

T F 2. A dry bar of soap usually contains fewer bacteria than a moist one.

T F 3. Your hands and body should not touch the sink at any time during handwashing.

T F 4. Bacteria that enter the body through breaks in the skin are more dangerous than bacteria that enter through the nose and mouth.

T F 5. You can spread microorganisms to another person without touching him.

T F 6. Human fingers are the most common means of spreading microorganisms.

T F 7. The palms of the hands should be washed before washing the fingers.

T F 8. All soap film on the hands should be removed by thorough rinsing.

T F 9. The fingertips usually contain more bacteria than other parts of the hands.

T F 10. An infected person can spread his infection to animals, food, clothing, and other objects as well as to people.

Part II Directions: Short-Answer/Completion. Please write your response in the space provided.

1. List five environmental conditions which facilitate the growth of microorganisms.

_____ _____

_____ _____

_____

2. List two reasons for washing your hands in warm water.

_____

_____

ANNOTATED ANSWER SHEET

FORM B

PART I

1. T p. 61
2. T p. 62
3. T p. 63
4. F p. 61
5. T p. 60
6. T p. 60
7. T p. 65
8. T p. 62
9. T p. 60
10. T p. 61

PART II

1. (a) Moisture p. 61

   (b) Food p. 61

   (c) Oxygen p. 61

   (d) Appropriate temperature range p. 61

   (e) Darkness p. 61

2. (a) Warm water makes better suds than cold water. p. 64

   (b) Warm water removes less protective oil from the skin than hot water. p. 64

PERFORMANCE TEST

Handwashing Technique for Medical Asepsis

In the skill laboratory you will correctly demonstrate the handwashing procedure, carefully observing the proper sequence of steps listed in the procedure.

PERFORMANCE CHECKLIST

Student: _____

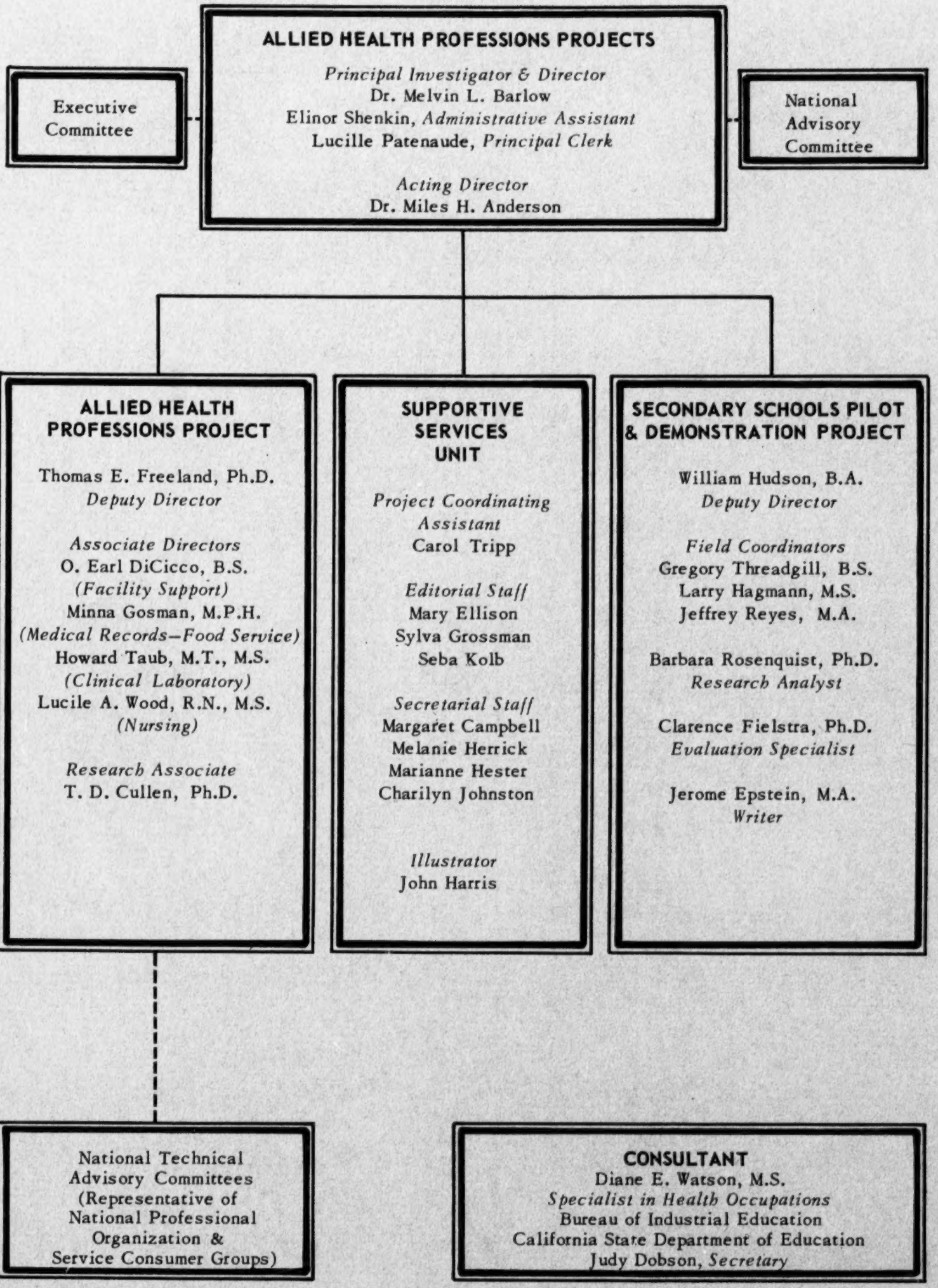
Date: _____

PASS____

FAIL____

HANDWASHING TECHNIQUE FOR MEDICAL ASEPSIS

	Satisfactory	Unsatisfactory	Not Observed	Not Applicable
1. Stands away from sink so as not to have clothing in contact with sink.				
2. Turns water on; adjusts to warm temperature. Keeps water running during entire procedure.				
3. Wets hands.				
4. Applies soap thoroughly; gets under nails and between fingers.				
5. Washes palms and backs of hands with strong frictional motion (10 rotary movements for at least 20 seconds).				
6. Washes fingers and the spaces between them, interlacing the fingers, rubbing them up and down for 10 seconds (10 strokes).				
7. Washes wrists and above wrists three to four inches, using rotary action (10-15 times).				
8. Repeats steps 4-7 (completion of 2-minute scrub, 120 strokes).				
9. Pays special attention to problem areas.				
10. Rinses well; runs water from wrists to fingers (final rinse).				
11. Dries thoroughly with paper towel from wrists to fingertips.				
12. Turns off water with paper towel and discards in receptacle.				
13. Uses hand-lotion if desired.				


ALLIED HEALTH PROFESSIONS PROJECTS
Principal Investigator & Director
Dr. Melvin L. Barlow
Elinor Shenkin, Administrative Assistant
Lucille Patenaude, Principal Clerk
Acting Director
Dr. Miles H. Anderson
Executive Committee
National Advisory Committee
ALLIED HEALTH PROFESSIONS PROJECT
Thomas E. Freeland, Ph.D.
Deputy Director
Associate Directors
O. Earl DiCicco, B.S.
(Facility Support)
Minna Gosman, M.P.H.
(Medical Records–Food Service)
Howard Taub, M.T., M.S.
(Clinical Laboratory)
Lucile A. Wood, R.N., M.S.
(Nursing)
Research Associate
T. D. Cullen, Ph.D.
SUPPORTIVE SERVICES UNIT
Project Coordinating Assistant
Carol Tripp
Editorial Staff
Mary Ellison
Sylva Grossman
Seba Kolb
Secretarial Staff
Margaret Campbell
Melanie Herrick
Marianne Hester
Charilyn Johnston
Illustrator
John Harris
SECONDARY SCHOOLS PILOT & DEMONSTRATION PROJECT
William Hudson, B.A.
Deputy Director
Field Coordinators
Gregory Threadgill, B.S.
Larry Hagmann, M.S.
Jeffrey Reyes, M.A.
Barbara Rosenquist, Ph.D.
Research Analyst
Clarence Fielstra, Ph.D.
Evaluation Specialist
Jerome Epstein, M.A.
Writer
National Technical Advisory Committees (Representative of National Professional Organization & Service Consumer Groups)
CONSULTANT
Diane E. Watson, M.S.
Specialist in Health Occupations
Bureau of Industrial Education
California State Department of Education
Judy Dobson, Secretary